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 Holland, Sacha
 Xu, Weiduan
 Rigel Pharmaceuticals, Inc.

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<140> WO PCT/US03/27523

<141> 2003-09-02

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ggaagatata aacacgtcca tgaccaacag taccgcggcc agcaggcccc cggtcaccct      300
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caaagagatc cgcg              374

```

<210> 9
 <211> 885
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(885)
 <223> n = g, a, c or t

```

<400> 9
agaggcgcag cggtcgcagc gntggctcag tgtgctgggt tcttgccggt tgaatcgagt      60
aggcatccag agtggtgcc tccaggtcat ggggtggcat ggggtagccc gcagcgtcgc      120
tgaccgatc ttggcgccc cgcagatgac tggggagctg gccggcatgg gctggtaacgg      180
aatggtcatg actctccctt gcggagactg ggagagcgtc tccagcatga ccaggcaa      240

```

ctgcttgaca	cactcgggtga	cagactgcgg	cacgccagcg	atggtgatgg	cccgtcggg	300
ggagtttggg	cagcatatcc	cccgaactg	gacctgcgcc	cccgtaactct	cgcggtatctc	360
tttgatctta	cacccgcctt	tcccaatcag	tgagcccgca	ctgggtgggc	ggcaacaaca	420
gctcaggggtg	accggggggcc	tgttgccgc	ggtactgttt	ggtcatggag	ctgttgatat	480
cttcctccag	cttgctgatg	atcatagcga	aagccttaaa	gatggcattg	gtggggccgg	540
tcagagtgat	gattctctcc	ggacaattcc	cctccgagat	gtttgatccg	ggcgccactc	600
tctcgcgga	tctcttaac	gaatcccctt	tcttcccaat	gatgcttcta	cttcctttcc	660
gtgcatagga	agccgaatgg	tgagagtcac	attttagtcc	acttttcagt	cacaccgggg	720
atccatggnc	gancgggcgg	ggacgggcgt	acgggggaat	tgggctcgta	acagttggnc	780
cagntcntta	ggcgggtgaga	gggaggggaag	ggaggccaac	aatggcgggg	agaagaaggc	840
acgacaacag	agtgcggagg	acaaccaaca	caacaaggta	aaaaa		885

<210> 10
 <211> 715
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(715)
 <223> n = g, a, c or t

<400> 10						
cttgaatcga	gtaggcatcc	agagngtggg	ccctccaggt	catgggtggc	atgggggtag	60
cccgcagcgt	cgctgcaccg	atcttgcccg	cccgcgtaga	tgactgggga	gctggccggc	120
atgggctggg	acggaatggg	catgactctc	ccttgccggag	actgggagag	cgtctccagc	180
atgaccaggc	aaatctgctt	gacacactcg	gtgacagact	gcggcacgcc	agcgatgggtg	240
atggcccgtc	cggngagagt	tagggcacgc	aatatcccca	cgaacaaact	ggaactgacg	300
gccccgaaa	ctctacgna	gatactcntt	aagaaacttn	acaccgggac	ttatacccaa	360
atcagagaag	ccgcaacatg	ggtggcaccg	gaaaacaaca	gaactccagg	ggatgaaccg	420
gaggggacat	agaaagggaa	cagacgggga	taccataggt	ctggcggtcc	caatggggag	480
gcctgcntat	gaactaaatc	cttacccttc	ccaancacat	aggnatccgg	aatggaaatc	540
aaataggcgg	aaaaangtcc	ctttaaaaca	gaaaatnngg	caacttngna	aggggggggac	600
cacgagacan	aacaaaccga	agacatacgc	aaccagggaa	caaaanttac	cccgacacgc	660
agagaaggnt	ggacancacg	gcacagacca	cagtacccat	cnnagacgga	caccg	715

<210> 11
 <211> 643
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(643)
 <223> n = g, a, c or t

<400> 11						
cttgaatcga	gtaggcatcc	agaggtgggc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttgccgc	ccgcgcagat	gactggggag	ctggccggca	120
tgggctggta	cggaatgggc	atgactctcc	ccttgccgaga	ctgggagagc	gtctccagca	180
tgaccaggca	aatctgcttg	acacactcgg	tgacagactg	cggcacgcca	gcgatgggtga	240
tggcccgtc	ggtggagttg	ggcagcatat	ccccgcaca	cctggacctg	cgcccccgta	300
ctctcgcgga	tctcttatga	tcttaacaac	acacgacacn	tttttcncan	caaaatccag	360
ggagccgaca	acatggagtg	agcccggaca	ccacacagac	ctcagggtga	ccgggggcct	420
gcatggccga	cggatacnga	anggtcatgg	acgctgtgat	atcttctctc	agctagtoga	480
tgatcatagc	gaaaagcccc	tttcacaacg	aatgagggcc	attngagatn	ggggcgggcc	540
gggatccagg	aaggttcgca	ctaggaactn	acgtaccatt	atccccaggg	agaaaacncc	600
agaacaatat	tacaccacc	caccgattac	cccaagaaag	aaa		643

<210> 12
 <211> 544
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(544)
 <223> n = g, a, c or t

```

<400> 12
cttgaatcga gtaggcatcc agaggtggtc cctccagggtc atgggtggca tgggggtagc      60
ccgcagcgtc gctgcgccga tcttgccgcg ccgcgcagat gactggggag ctggccggca      120
tgggctggta cggaatggtc atgactctcc cttgcggaga ctgggagagc gtctccagca      180
tgaccaggca aatctgcttg acacactcgg tgacagactg cggcacgccca gcgatggtga      240
tggcccgtc  ggtggagttg ggcagcatat cccacgagc anctggacct gcgccccga      300
tactctcgac ggatctcttt gatcttacac ccgacctttc ccaatcaggg aagccgcaca      360
tgggatggca cggcaccacc agacctcagg gatgaccagg gaggcctgca tggaccgcag      420
gatactgata ggatcatgga gnctgataga tatcttccct ccagactatg ntcgatgatc      480
aataaggcgg aaaaggccat aaanagnaat gggcaattag ggatcgggag gaccaggatc      540
aaga
  
```

<210> 13
 <211> 505
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(505)
 <223> n = g, a, c or t

```

<400> 13
cttgaatcga gtaggcatcc agaggtggtc cctccagggtc agtaatggcc gggttttttg      60
ggtngggggcc caaattttcg ggggaaggag taaaggcccc caccgggacc aattggcagg      120
gtccgctgcn accgatactt ggcctgccgc gcagatgact ggggagctgg tcggcatggg      180
ctggtacgga atgggtcatga ctctcccttg cgggagactgg gagagcgtct ccagcatgac      240
caggcaaate tgcttgacac actcggtgac agactgcggc acgccagcga tggatgatggc      300
ccgctcgggtg gagttgggca gcatatcccc cgccacctgg acctgcgccc ccgtactctc      360
gcggatctct ttgatcttac accgccttt cccaatcagg gagccgcact ggggtggcgg      420
caccaccagc ctcaggggtga ccgggggcct gctggccgcg gtactgttgg tcatggggct      480
gttgatatct tctccagct  tgctg
  
```

<210> 14
 <211> 431
 <212> DNA
 <213> Homo sapiens

```

<400> 14
cttgaatcga gtaggcatcc agaggtggtc cctccagggtc atgggtggca tgggggtagc      60
ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat actggggagc tggccggcat      120
gggctgggtac ggaatgggtca tgactctccc ttgcggagac tgggagagcg tctccagcat      180
gaccaggcaa atctgcttga caccctcggg gacagactgc ggcacgccag cgatggtgat      240
ggcccgtcgt gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact      300
ctcgcggtac tctttgatct tacaccgcgc tttcccaatc agggagccgc actgggtggc      360
cggcaccacc agcctcaggg tgaccggggg cctgctggcc gcggtactgt tgggtcatgga      420
gctgttgata t
  
```

<210> 15
 <211> 614
 <212> DNA
 <213> Homo sapiens

<400> 15
 agcttggtac gagctcggat cactagtaac ggccgccagt gtgctggaat tcgcccttcg 60
 aggagagtgg cgcgcggatc aacatctcgg aggggaattg tccggagaga atcatcactc 120
 tgaccggccc caccaatgcc atctttaagg ctttcgctat gatcatcgac aagctggagg 180
 aagatatcaa cagctccatg accaacagta ccgcggccag caggcccccg gtcaccctga 240
 ggctggtggg gccggccacc cagtgcggct ccctgattgg gaaaggcggg tgtaagatca 300
 aagagatccg cgagagtacg ggggcgcagg tccagggtggc gggggatatg ctgcccaact 360
 ccaccgagcg ggccatcacc atcgctggcg tgccgcagtc tgtcaccgag ggtgtcaagc 420
 agatttgctt ggtcatgctg gagacgctct ccagctctcc gcaaggggaga gtcatgacca 480
 ttccgtacca gcccatgccg gccagctccc cagtatctgc gcgggcggcc aagatcgggtg 540
 cagcgacgct gcgggctacc cccatgccac ccatgacctg gagggaccac ctctggatgc 600
 ctactcgatt caag 614

<210> 16
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 16
 cttgaatcga gtaggcatcc agaggtgggc cctccaggtc atgggtggca tgggggtagc 60
 ccgcagcgtc gctgcaccga tcttgccgc ccgcgcagat actggggagc tggccggcat 120
 gggctggtac ggaatgggtc tgactctccc ttgcggagac tgggagagcg tctccagcat 180
 gaccaggcaa atctgcttga cacactcggg gacagactgc ggcacgccag cgatgggtgat 240
 ggcccgtcgc gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact 300
 ctgcggatc tctttgatct tacacccgcc tttcccaatc agggagccgc actgggtggc 360
 cggcaccacc agcctcaggg tgaccggggg cctgctggcc gcggtactgt tggatcatgga 420
 gctgttgata tcttcctcca gcttgctgat gatcatagcg aaagccttaa agatggcatt 480
 ggtggggccg gtcagagtga tgattctctc cggacaattc ccctccgaga tgttgatccg 540
 cgcgccatct cctcgcggat cctcttaaac cgatcccctt tcttcccaat gatgcttcta 600
 cttctttccg tgcatagaa 619

<210> 17
 <211> 382
 <212> DNA
 <213> Homo sapiens

<400> 17
 cttgaatcga gtaggcatcc agaggtgggc cctccaggtc atgggtggca tgggggtagc 60
 ccgcagcgtc gctgcaccga tcttgccgc ccgcgcagat actggggagc tggccggcat 120
 gggctggtac ggaatgggtc tgactctccc ttgcggagac tgggagagcg tctccagcat 180
 gaccaggcaa atctgcttga cacactcggg gacagactgc ggcacgccag cgatgggtgat 240
 ggcccgtcgc gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact 300
 ctgcggatc tctttgatct tacacccgcc tttcccaatc agggagccgc actgggtggc 360
 cggcaccacc agcctcaggg tg 382

<210> 18
 <211> 566
 <212> DNA
 <213> Homo sapiens

<400> 18
 cttgaatcga gtaggcatcc agaggtgggc cctccaggtc atgggtggca tgggggtagc 60
 ccgcagcgtc gctgcaccga tcttgccgc ccgcgcagat actggggagc tggccggcat 120
 gggctggtac ggaatgggtc tgactctccc ttgcggagac tgggagagcg tctccagcat 180
 gaccaggcaa atctgcttga cacactcggg gacagactgc ggcacgccag cgatgggtgat 240
 ggcccgtcgc gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact 300

ctcgcggatc	tctttgatct	tacacccgcc	tttcccaatc	agggagccgc	actgggtggc	360
cggcaccacc	agcctcaggg	tgaccggggg	cctgctggcc	gcggtactgt	tggatcatgga	420
gctgttgata	tcttccctcca	gcttgctgat	gatcatagcg	aaagccttaa	agatggcatt	480
ggtggggccg	gtcagagtga	tgattctctc	cggacaattc	ccctccgaga	tgttgatccg	540
cgcgccactc	tcctcgcgga	tcctct				566

<210> 19
 <211> 643
 <212> DNA
 <213> Homo sapiens

<400> 19						
cttgaatcga	gtaggcattc	agaggtgggc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttggccgc	ccgcgcagat	actggggagc	tggccggcat	120
gggctgggtac	ggaatgggtc	tgactctccc	ttgcggagac	tgggagagcg	tctccagcat	180
gaccaggcaa	atctgcttga	cacactcggg	gacagactgc	ggcacgccag	cgatgggtgat	240
ggcccgcctc	gtggagttgg	gcagcatatc	ccccgccacc	tggacctgcg	cccccgtagc	300
ctcgcggatc	tctttgatct	tacacccgcc	tttcccaatc	agggagccgc	actgggtggc	360
cggcaccacc	agcctcaggg	tgaccggggg	cctgctggcc	gcggtactgt	tggatcatgga	420
gctgttgata	tcttccctcca	gcttgctgat	gatcatagcg	aaagccttaa	agatggcatt	480
ggtggggccg	gtcagagtga	tgattctctc	cggacaattc	ccctccgaga	tgttgatccg	540
cgcgccactc	tcctcgcgga	tcctcttaac	cgactccctt	ttcttcccaa	atgatgcttc	600
ctacttcctt	tttccgtgca	taagaaagcc	gaaatgggtg	gag		643

<210> 20
 <211> 370
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(370)
 <223> n = g, a, c or t

<400> 20						
nngctgcgga	tcaacatctc	ggaggggaat	tgtccggaga	gaatcatcac	atcatgaccg	60
gccccaccaa	tgccatcttt	aagagctttc	gctatgatca	tcgacaagac	tggaggaaga	120
tatcaacagc	tccatgacca	acagtaccgc	ggcacagcag	gccccacggg	tcaccctgag	180
gctggatggg	gccggccacc	cagatgcggc	tccttgatan	gggaaaggcg	ggtgtaagat	240
caaagagatc	annagagagt	acggggngcg	caggtccaag	gaatggcagg	agggatatgc	300
atgcccacaa	acaaccgaga	cggggccaaan	accatagctg	gacagtgccg	aaggactgtc	360
accngaagat						370

<210> 21
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 21						
cttgaatcga	gtaggcattc	agaggtgggc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttggccgc	ccgcgcagat	gactggggag	ctggccggca	120
tgggctggta	cggaatgggtc	atgactctcc	cttgcgggag	aactggggaa	gagcgtctcc	180
agcatgacca	ggcaaactctg	cttgacacac	tcggtgacag	actgcggcac	gccagcaatg	240
gtgatggccc	gctcgggtgga	gttgggcagc	atatcccccg	ccacctggac	ctgcgcccc	300
gtactctcgc	ggatctctt					319

<210> 22
 <211> 264
 <212> DNA
 <213> Homo sapiens

```

<220>
<221> modified_base
<222> (1)...(264)
<223> n = g, a, c or t

<400> 22
ggcgccagtg tgctgcnatt cgcntatctc tcggcatgga cgagctggta caaaaaggag      60
gagggcccgc aagtcggtgg cagcgggtggc tccagtgttg gctggggggg ttctgcggct      120
tgaatcggaa ggtttaaggg ggcatccaga ggtggtccct ccaggtcatg ggtggcatgg      180
gggtagcccg cagcgtcgtc gcaccgatct tggcgccgcg ccagatgact gggggaagct      240
ggccggcatg ggcttggtac ggaa                                     264

<210> 23
<211> 626
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(626)
<223> n = g, a, c or t

<400> 23
cgctgcggat caacatctcg gaggggaatt gtccggagag aatcatcact ctgaccggcc      60
ccaccaatgc catctttaag gctttcgcta tgatcatcga caagctggag gaagatatca      120
acagctccat gaccaacagt accgcggcca gcaggccccc ggtcaccctg aggctggtgg      180
tgccggccac ccagtgcggc tccctgattg ggaaaggcgg gtgtaagatc aaagagatcc      240
gcgagagtac gggggcgtag gtccaggtgg cgggggatat gctgcccac tccaccgagc      300
gggccatcac catcgctggc gtgccgcagt ctgtcaccga gtgtgtcaag cagatttgcc      360
tggtcatgct ggagacgctc tcccagtcct cgcaaggagg agtcatgacc attccgtacc      420
agcccattgc ggccagctcc ccagtcatct gcgcggggcg ccaaagatcg gngcagcgac      480
gctgcgggct accccacaat agacacacca tgacctggag ggaacaacta ctggatgcta      540
catccgannt caagccggaa aanccaaca aactgggaac cacacgatag acacacgtcg      600
ccttggcagg catcaccacc tatgaa                                     626

<210> 24
<211> 849
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(849)
<223> n = g, a, c or t

<400> 24
cttgaatcga gtaggcatcc agaggtggtc cctccaggtc atgggtggca tgggggtagc      60
ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat gactggggag ctggccggca      120
tgggctggta cggaatggtc atgactctcc cttgcggaga ctgggagagc gtctccagca      180
tgaccaggca aatctgcttg acacactcgg tgacagactg cggcacgcca gcgatggtga      240
tggcccgtc ggtggagtgg ggcagcatat ccccgcacc ctggacctgc gccccgtac      300
tctcgcggat ctctttgatc ttacaccgcg ctttcccaat cagggagccg cactgggtgg      360
ccggcaccac cagcctcagg gtgaccgggg gcctgctggc cgcggtactg ttggtcatgg      420
agctgttgat atcttcctcc agacttgctg atgatcatag cgaaagcctt aaaagatggc      480
attggtgggg gccggtcaga gtgatgatc tctccggaca attccccttc gaagatgtga      540
tccgcgcgca catctcctcg cggatctctt aaaccgagtc ccntttcatc caagaatgna      600
ctcctactcc ctataccggc cataanaang ccgaaatggg tgaagaangt cacactttaa      660
ggtccacact tatcagcaca ncccgggac cacaggggca aacggccggg agcaggaagg      720
cccagagggc ccggaataaac ccanacaaca gggttaaata aaaataaagg gccgcaaaa      780
aatcgaagga atcgaaaaa acangccgcc aaatcggcac actaatgaac gataacaact      840
aaagacaga                                     849

```

<210> 25
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(360)
 <223> n = g, a, c or t

<400> 25							
cgctgcgggc	tcccggcccg	gctcgccatg	gatggccggt	gtgactgaaa	gtggactaaa		60
tgtgantctc	accattcggc	ttcttatgca	cggaaaggaa	gtaggaagca	tcattgggaa		120
gaaaggggag	tcngttaaga	ngatccgtga	ggagagtggc	gcgcggatca	actatctcgt		180
gaggggaattg	tcncggagag	aancatcact	ctgaccggcc	ccaccaatga	ncanctttaa		240
ggcttgcgca	tatgatcatc	gacaagcngg	aggaagatat	caacaganta	ccatgaccaa		300
cagtaccgcg	ggacagacan	gccccggnc	agacangagg	ctggagg nag	ccggaccagc		360

<210> 26
 <211> 744
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(744)
 <223> n = g, a, c or t

<400> 26							
cttgaatcga	gtaggcatcc	agaggtgggc	cctccaggtc	atgggtggca	tgggggtagc		60
ccgcagcgtc	gctgcaccga	tcttggccgc	ccgcgcagat	gactggggag	ctggccggca		120
tgggtctgta	cggaatggtc	atgactctcc	cttgccgaga	ctgggagagc	gtctccagca		180
tgaccaggca	aatctgcttg	acacactcgg	tgacagactg	cggcacgcca	gcgatgggtga		240
tggcccgcgc	ggtggagtgg	ggcagcatat	ccccgcact	ggacctgcgc	ccccgtactc		300
tcgcggatct	ctttgatctt	acaccgcct	ttcccaatca	gggagccgca	ctgggtgtgc		360
cggcaccacc	agcctcaggg	tgaccggggg	cctgctggcc	gcggtactgt	tggtcatgga		420
gctgttgata	tcttcctcca	gcttgctgat	gatcatagcg	aaagccttaa	agatggcatt		480
ggtggggccg	gtcagagtga	tgattctctc	cggacaattc	ccctccgaga	tgttgatccg		540
cgcgccactc	tcctcgcgga	tcctcttaaa	cgatcccctt	tcttcccaat	gatgcttcca		600
tacttccttt	ccgtgcataa	gaagccgaaa	tggtgagagt	caccatttag	gtccactttc		660
agtcaacacc	ggatccatgg	gcgagcgggg	gcaggacgta	ccggggngag	attgggctcg		720
aacagtgggc	aaagacagga	caga					744

<210> 27
 <211> 554
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(554)
 <223> n = g, a, c or t

<400> 27							
cgctgcgggc	tcccgcgcgc	tcccgcctgc	tcccgcggcc	ctcgctcgcc	tcgcgcgggc		60
agttttgggc	ctacacctcc	cctccccccg	ccagccgcca	aagacttgac	cacgtaacga		120
gcccaactcc	cccgaacgcc	gcccgcgcgt	cgccatggat	gccggtgtga	ctgaaagtgg		180
actaaatgtg	actctcacca	ttcggcttct	tatgcacgga	aaggaagtag	gaagcatcat		240
tgggaagaaa	ggggagtcgg	ttaagaggat	ccgcgaggag	agtggcgcg	ggatcaacat		300
ctcggagggg	aatttgtccg	gagagaatca	tcactctgac	cggccccacc	aatgccatct		360
ttaaggcttt	cgctatgata	atcgacaagc	tggaggaaga	tatcaacagc	tccatgacca		420

acagtaccgc	ggccagcagg	cccccggtca	ccctgaggct	ggtggtngcc	ggccacccag	480
tgcggctccc	tgattgggaa	aggcgggtgt	aagatcaaag	agatccgcga	gagtacgggg	540
gcgcaggtcc	aggt					554

<210> 28
 <211> 553
 <212> DNA
 <213> Homo sapiens

<400> 28						
cgctgcggcc	tcccgcgccg	tcccgcctcg	tcccgcggcc	ctcgctcgcc	tcgcgcggc	60
agttttgggc	ctacacctcc	cctccccccg	ccagccgccca	aagacttgac	cacgtaacga	120
gcccactcc	cccgaacgcc	gcccgcgct	cgccatggat	gccggtgtga	ctgaaagtgg	180
actaaatgtg	actctcacca	ttcggtttct	tatgcacgga	aaggaagtag	gaagcatcat	240
tgggaagaaa	ggggagtcgg	ttaagaggat	ccgcgaggag	agtggcgcg	ggatcaacat	300
ctcgaggggg	aattgtccgg	agagaatcat	cactctgacc	ggccccacca	atgccatctt	360
taaggctttc	gctatgatca	tcgacaagct	ggaggaagat	atcaacagct	ccatgaccaa	420
cagtaccgcg	gccagcaggc	ccccggtcac	cctgaggctg	gtggtgccgg	ccaccagtg	480
cggctccctg	attgggaaag	gcgggtgtaa	gatcaaagag	atccgcgaga	gtacgggggg	540
cgcaggtcca	ggg					553

<210> 29
 <211> 801
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(801)
 <223> n = g, a, c or t

<400> 29						
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tgtgactctc	accattcggc	ttcttatgca	cggaaaggaa	gtaggaagca	tcattgggaa	120
gaaaggggag	tcggttaaga	ggatccgcga	ggagagtggc	gcgcggatca	acatctcgga	180
ggggaattgt	ccggagagaa	tcatcactct	gaccggcccc	accaatgccca	tctttaaggc	240
tttcgctatg	atcatcgaca	agctggagga	agatatcaac	agctccatga	ccaacagtac	300
cgcgccagc	aggcccccg	tcaccctgag	gctggtggtg	ccggccaccc	agtgcggctc	360
cctgattggg	aaaggcgggt	gtaagatcaa	agagatccgc	gagagtacgg	gggcgcaggt	420
ccagggtggc	ggggatatgc	tgccaactcc	accgagcggg	ccatcaccat	cgctggcgtg	480
ccgcagctcg	ttcacggaag	tgtgtcacag	cnagatttgc	ctggtcatgc	ttggaaaacg	540
gcttctcccc	aantaccttc	cngcaaagg	gagaagtcca	ttgaacccan	ttccccgcgn	600
aaccaacagc	ccccaaatgg	gcccggggcc	acaggctccc	cccaaggaca	natcnggagg	660
ccggggggac	gggcccacg	aatccgggga	ggcaagacga	anacatgcag	ggcataaccc	720
cccanggcac	acccatgaac	ctgggaagg	gaccacctct	gggaatggcn	aatcgagtca	780
agccagaaaa	accagcacac	g				801

<210> 30
 <211> 827
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(827)
 <223> n = g, a, c or t

<400> 30						
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ccgcagcgtc	gctgcaccga	tcttggcgcc	gcgcagatga	ctggggagct	ggccggcatg	120
ggctggtacg	gaatggtcat	gactctccct	tcgggagact	gggagagcgt	ctccagcatg	180

accaggcaaa	tctgcttgac	acactcgggtg	acagactgcg	gcacgccagc	gatgggtgatg	240
ngcccgcctcg	gtggagttgg	gcagcatatc	ccccggcacc	tgganctgcg	cccccgctact	300
ctcgcggatc	tctttgatct	tacacccgcc	tttcccaatc	agtggagccg	cactgggtgt	360
gcctggcacc	accagcctca	gggtgaccgg	ggtgcctgct	ggccgcggta	ctgtttggtc	420
atggagctgt	tgatatcttc	ctccagcttg	tcgatgatca	tagcgaaagc	cttaaagatg	480
gcattggtgg	ggccggtcag	agtgatgatt	ctctccggac	aattccctcc	gagatggtga	540
tccgcgcgcc	aatctcctcg	cggatcctct	taacgaatcc	cctttcttcc	aaangatgat	600
tcctanttcc	tttaccgtgc	atatagaaaag	cccgaatagg	ttgacgagtc	cacatttagt	660
ccacactttc	agtcacaccc	gggaatccaa	tgggcgagcg	gagggacgga	gacgggggga	720
agatgggctgc	cgaacgttgg	gccaagaata	gagcaagaga	gnagaaggaa	aaangacaaa	780
gagcacaaac	agaaaaaaga	caaaaaggna	gcaagcacac	naaaaaa		827

<210> 31
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 31						
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tgtgactctc	accattcggc	ttcttatgca	cggaaaggaa	gtaggaagca	tcattgggaa	120
gaaaggggag	tcggttaaga	ggatccgcga	ggagagtggc	gcgcggatca	acatctcgga	180
ggggaattgt	cggagagaa	tcatactct	gaccggcccc	accaatgcc	tctttaaggc	240
tttcgctatg	atcatcgaca	agctggagga	agatatcaac	agctccatga	ccaacagtac	300
cgcgccagc	aggcccccg	tcaccctgag	gctggtggtg	ccggacaccc	agtgcggctc	360
cctgattggg	aaaggcggga	tgtaagatca	aag			393

<210> 32
 <211> 1634
 <212> DNA
 <213> Homo sapiens

<400> 32						
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gtcctcgctc	gcctcgcgcc	ggtagttttg	ggcctacacc	tccctctccc	ccgccagccg	120
ccaaagactt	gaccacgtaa	cgagcccaac	tccccgaac	gccgcccggc	gctcgccatg	180
gatgccgggtg	tgactgaaaag	tggactaaat	gtgactctca	ccattcggct	tcttatgcac	240
ggaaaggaag	taggaagcat	cattgggaag	aaaggggag	cggttaagag	gatccgcgag	300
gagagtggcg	cgcgatcaa	catctcggag	gggaattgtc	cggagagaa	catcactctg	360
accggcccca	ccaatgccat	ctttaaggct	ttcgctatga	tcatacgaaa	gctggaggaa	420
gatatcaaca	gctccatgac	caacagtacc	gcggccagca	ggcccccggt	caccctgagg	480
ctggtggtgc	cggccaccca	gtgcggctcc	ctgattggga	aaggcgggtg	taagatcaaa	540
gagatccgcg	agagtacggg	ggcgaggtc	caggtggcgg	gggatatgct	gcccactcc	600
accgagcggg	ccatcaccat	cgctggcggtg	ccgcagctctg	tcaccgagtg	tgtcaagcag	660
atttgctctg	tcattgctgga	gacgctctcc	cagctctccg	aaggagagtg	catgaccatt	720
ccgtaccagc	ccatgcgggc	cagctcccca	gtcatctgcg	cgggcggcca	agatcgggtg	780
agcgacgctg	tgggctaccc	ccatgccacc	catgacctgg	agggaccacc	tctagatgcc	840
tactcgattc	aaggacaaca	caccatttct	ccgctcgatc	tggccaagct	gaaccagggtg	900
gcaagacaac	agtctcactt	tgccatgatg	cacggcggga	ccggattcgc	cggaattgac	960
tccagctctc	cgagggtgaa	aggctattgg	gcaagtttgg	atgcatctac	tcaaaccacc	1020
catgaactca	ccattccaaa	taacttaatt	ggctgcataa	tcgggcgcca	aggcgccaac	1080
attaatgaga	tccgccagat	gtccggggcc	cagatcaaaa	ttgccaaccc	agtgggaaggc	1140
tcctctggta	ggcagggttac	tatcactggc	tctgctgcca	gtattagtct	ggcccagtat	1200
ctaataaatg	ccaggctttc	ctctgagaag	ggcatggggt	gcagctagaa	cagtgtaggt	1260
tccctcaata	acccttttct	gctgttctcc	catgatccaa	ctgtgtaatt	tctgggtcagt	1320
gattccaggt	tttaaataat	ttgtaagtgt	tcagtttcta	cacaacttta	tcatccgcta	1380
agaattttaa	aatcacattc	tctgttcagc	tgtaaatgct	gggatccata	tttagtttta	1440
taagcttttc	cctgttttta	gttttgtttt	gggttttttg	gctcatgaat	tttatttctg	1500
tttgtcgata	agaaatgtaa	gagtggaaatg	ttataaaatt	tcagtttagt	tctgtaaatgt	1560
caagaattta	agaattaaaa	aacggattgg	ttaaaaaatg	cttcatattt	gaaaaagctg	1620
ggaattgctg	tctt					1634

<210> 33
 <211> 356
 <212> PRT
 <213> Homo sapiens

<400> 33
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 1 5 10 15
 Arg Leu Leu Met His Gly Lys Glu Val Gly Ser Ile Ile Gly Lys Lys
 20 25 30
 Gly Glu Ser Val Lys Arg Ile Arg Glu Glu Ser Gly Ala Arg Ile Asn
 35 40 45
 Ile Ser Glu Gly Asn Cys Pro Glu Arg Ile Ile Thr Leu Thr Gly Pro
 50 55 60
 Thr Asn Ala Ile Phe Lys Ala Phe Ala Met Ile Ile Asp Lys Leu Glu
 65 70 75 80
 Glu Asp Ile Asn Ser Ser Met Thr Asn Ser Thr Ala Ala Ser Arg Pro
 85 90 95
 Pro Val Thr Leu Arg Leu Val Val Pro Ala Thr Gln Cys Gly Ser Leu
 100 105 110
 Ile Gly Lys Gly Gly Cys Lys Ile Lys Glu Ile Arg Glu Ser Thr Gly
 115 120 125
 Ala Gln Val Gln Val Ala Gly Asp Met Leu Pro Asn Ser Thr Glu Arg
 130 135 140
 Ala Ile Thr Ile Ala Gly Val Pro Gln Ser Val Thr Glu Cys Val Lys
 145 150 155 160
 Gln Ile Cys Leu Val Met Leu Glu Thr Leu Ser Gln Ser Pro Gln Gly
 165 170 175
 Arg Val Met Thr Ile Pro Tyr Gln Pro Met Pro Ala Ser Ser Pro Val
 180 185 190
 Ile Cys Ala Gly Gly Gln Asp Arg Cys Ser Asp Ala Val Gly Tyr Pro
 195 200 205
 His Ala Thr His Asp Leu Glu Gly Pro Pro Leu Asp Ala Tyr Ser Ile
 210 215 220
 Gln Gly Gln His Thr Ile Ser Pro Leu Asp Leu Ala Lys Leu Asn Gln
 225 230 235 240
 Val Ala Arg Gln Gln Ser His Phe Ala Met Met His Gly Gly Thr Gly
 245 250 255
 Phe Ala Gly Ile Asp Ser Ser Ser Pro Glu Val Lys Gly Tyr Trp Ala
 260 265 270
 Ser Leu Asp Ala Ser Thr Gln Thr Thr His Glu Leu Thr Ile Pro Asn
 275 280 285
 Asn Leu Ile Gly Cys Ile Ile Gly Arg Gln Gly Ala Asn Ile Asn Glu
 290 295 300
 Ile Arg Gln Met Ser Gly Ala Gln Ile Lys Ile Ala Asn Pro Val Glu
 305 310 315 320
 Gly Ser Ser Gly Arg Gln Val Thr Ile Thr Gly Ser Ala Ala Ser Ile
 325 330 335
 Ser Leu Ala Gln Tyr Leu Ile Asn Ala Arg Leu Ser Ser Glu Lys Gly
 340 345 350
 Met Gly Cys Ser
 355

<210> 34
 <211> 482
 <212> DNA
 <213> Homo sapiens

<400> 34
 ctgcgccggt gaagacgaag tgcgctcaag cgctccagtgc cccaacgccca gcgcaccccc 60
 ggcccccgac acccccagtc ccacgccacg ccgccaccac ggcaccactt acaacaacgg 120

ttgctcaagc	agcggcacct	tgtccccgga	accgcagtag	ccgcctgctg	ccgcgccttg	180
gtcctcgatg	gaggccagcg	ccaggccccc	gttggcggtg	gctccgccc	tcgagcccct	240
tggagtctcg	aggaggatcg	gccaccatga	tggaagcacc	ggggtttctt	agcgcctgga	300
agctggctgg	gagcgcttgg	gctccttccc	aggacccgac	gttcctagga	ctgagttgag	360
taacagcacc	tggagactgg	aacttttgag	ggctccttag	agttgtgagt	tcacagcact	420
aagttccttg	gctcttgaa	gctggagtgt	ttaaattccc	caggctgggc	gctaggcttc	480
tc						482

<210> 35
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 35						
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ccccgacacc	cccagtccca	gcgccacgcc	ggccaccacg	gccaccactg	tcagcagcac	120
aagcaggttg	gctcgaaggc	agcggcgcac	ctgggtcccg	gaaccgcagt	agccgcctgc	180
tgccgcgcct	tggctctcga	tggaggccag	cgccaggccc	ccgttggcgg	tgggctccgc	240
cgctgcgagc	cccttgagg	ctcgaggagg	atcggccacc	atgatgggaa	gcaccggggt	300
ttcttagcgc	ctggaagctg	gctgggagcg	cttgggctcc	ttcccaggac	ccgacgttcc	360
taggactgag	ttgagtaaca	gcacctggag	actggaactt	tggagggttc	cttagagttg	420
tgagttcaca	gcactgaagt	tccttggttc	ttggaagctg	gagtgtttaa	attccccagg	480
ctgggcgctg	aggcttctct	gctctgcccc	gtgtgccaga	tgtccgaaag	ctgggagttc	540
ggagcgcccc	ggtttccct					558

<210> 36
 <211> 595
 <212> DNA
 <213> Homo sapiens

<400> 36						
ctcctagggc	caaggaaccc	gggcgctccg	aactcccagc	tttcggacat	ctggcacacg	60
gggcagagca	gagaagcctc	agcgcccagc	ctggggaatt	taaacactcc	agcttccaag	120
agccaaggaa	cttcagtgtc	gtgaactcac	aactctaagg	agccctccaa	agttccagtc	180
tccagggtgt	gttactcaac	tcagtcctag	gaacgtcggg	tcctgggaag	gagcccaagc	240
gctcccagcc	agcttccagg	cgctaagaaa	ccccggtgct	tcccatcatg	gtggccgata	300
ctcctcgaga	ctccaagggg	ctcgcagcgg	cggagcccac	cgccaacggg	ggcctggcgc	360
tggcctccat	cgaggaccaa	ggcgcggcag	caggcggtta	ctgcggttcc	cgggaccagg	420
tgcgcgcgtg	ccttcgagcc	aacctgcttg	tgctgctgac	agtgggtggc	gtggtggccg	480
gcgtggcgct	gggaactggg	gtgtcggggg	ccgggggtgc	gctggcgctg	ggcctggagc	540
gcttgagcgc	cttcgtcttc	ccgggcgagc	cgaaccacag	cacactggag	ccacc	595

<210> 37
 <211> 724
 <212> DNA
 <213> Homo sapiens

<400> 37						
ctataggggc	aatgggccct	ctagatgcat	gctcgagcgg	ccgccagtgt	gatggatatc	60
tgcagaattc	gcccttctct	cggcatggac	gagctgtaca	aggaggaggc	cgccaaggcc	120
ggtggcagca	gtggctccag	tgtgctgggt	tccggctcgc	ccgggaagac	gaaggcgctc	180
aagcgctcca	ggcccaacgc	cagcgcaccc	ccggtccccg	acacccccag	tcccagcgcc	240
acgcgcgcca	ccacggccac	cactgtcagc	agcacaagca	ggttggctcg	aaggcagcgg	300
cgcacctggt	cccgggaacc	gcagtagccg	cctgctgccc	cgccttggtc	ctcgatggag	360
gccagcgcca	ggcccccggt	ggcgggtggg	tccgccgctg	cgagccccct	ggagtctcga	420
ggaggatcgg	tcaccatgat	gggaagcacc	ggggtttctt	agcgccctga	agctggctgg	480
gagcgcttgg	gctccttccc	aggacccgac	gttcctagga	ctgagttgag	taacagcacc	540
tggagactgg	aactttggag	ggctccttag	agttgcgagt	tcacagcact	gaagtctctt	600
ggctccttga	agctggagtg	tttaaattcc	ccaggctggg	cgtgaggct	tctctgctct	660
gccccgtgtg	ccagatgtcc	gaaagctggg	agttcggagc	gcccgggttc	cttggcccta	720
ggag						724

<210> 38
 <211> 681
 <212> DNA
 <213> Homo sapiens

<400> 38
 ctccctagggc caaggaaccc gggcgctccg aactcccagc tttcggacat ctggcacacg 60
 gggcagagca gagaagcctc agcgcccagc ctggggaatt taaacactcc agcttccaag 120
 agccaaggaa cttcagtgtc gtgaactcgc aactctaagg agccctccaa agttccagtc 180
 tccaggtgct gttactcaac tcagtcctag gaacgtcggg tcctgggaag gagcccaagc 240
 gctcccagcc agcttccagg cgctaagaaa ccccggtgct tcccatcatg gtgaccgatc 300
 ctccctcgaga ctccaagggg ctgcgcagcg cggagcccac cgccaacggg ggcctggcgc 360
 tggcctccat cgaggaccaa ggcgcggcag caggcggcta ctgcggttcc cgggaccagg 420
 tgcgcgctg ccttcgagcc aacctgcttg tgctgctgac agtgggtggc gtggtggccg 480
 gcgtggcgct gggactgggg gtgtcgggga ccgggggtgc gctggcggtg ggcctggagc 540
 gcttgagcgc cttcgtcttc ccgggcgagc cggaaccacg cacactggag ccaccgctgc 600
 caccggcctt ggcggcctcc tccttgtaga gctcgtccat gccgagagaa gggcgaattc 660
 tgcagatata catcacactg g 681

<210> 39
 <211> 614
 <212> DNA
 <213> Homo sapiens

<400> 39
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 gggcagagca gagaagcctc agcgcccagc ctggggaatt taaacactcc agcttccaag 120
 agccaaggaa cttcagtgtc gtgaactcac aactctaagg agccctccaa agttccagtc 180
 tccaggtgct gttactcaac tcagtcctag gaacgtcggg tcctgggaag gagcccaagc 240
 gctcccagcc agcttccagg cgctaagaaa ccccggtgct tcccatcatg gtggccgatc 300
 ctccctcgaga ctccaagggg ctgcgcagcg cggagcccac cgccaacggg ggcctggcgc 360
 tggcctccat cgaggaccaa ggcgcggcag caggcggcta ctgcggttcc cgggaccagg 420
 tgcgcgctg ccttcgagcc aacctgcttg tgctgctgac agtgggtggc gtggtggccg 480
 gcgtggcgct gggactgggg gtgtcggggg ccgggggtgc gctggcggtg ggcctggagc 540
 gcttgagcgc cttcgtcttc ccgggcgagc cggaaccacg cacactggag ccaccgctgc 600
 caccggcctt ggcg 614

<210> 40
 <211> 689
 <212> DNA
 <213> Homo sapiens

<400> 40
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 gtacaaggag gaggccgcca aggcgggtgg cagcgggtggc tccagtgtgc tgggttccgg 120
 ctgcgccggg aagacgaagg cgtcaagcg ctccaggccc aacgccagcg caccgccggc 180
 ccccgacacc ccagtcacca gcgccacgcc ggccaccacg gccaccactg tcagcagcac 240
 aagcaggttg gctcgaaggc agcggcgcac ctgggtcccg gaaccgcagt agccgcctgc 300
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 cgctgcgagc cccttgagat ctcgaggag atcggccacc atgatgggaa gcaccggggt 420
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 tgagttcaca gcaactgaagt tccttggtc ttggaagctg gagtgtttaa attccccagg 600
 ctgggcgctg aggtcttctc gctctgcccc gtgtgccaga tgtccgaaag ctgggagttc 660
 ggagcgcccc ggttccttgg ccctaggag 689

<210> 41
 <211> 730
 <212> DNA
 <213> Homo sapiens

```

<400> 41
actatagggc gaattggggc ctctagatgc atgctcgagc ggccgccagt gtgatggata      60
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ccggtggcag cggtggtccc agtgtgctgg gttccggctc gcccggaag acgaaggcgc      180
tcaagcgctc caggcccaac gccagcgcac ccccgcccc cgacaccccc agtcccagcg      240
ccacgccggc caccacggcc accactgtca gcagcacaag caggttggct cgaaggcagc      300
ggcgcacctg gtcccgggaa ccgcagtagc cgctgctgc cgcgccttgg tctcgtatgg      360
aggccagcgc caggcccccg ttggcggtgg gctccgccgc tgcgagcccc ttggagtctc      420
gaggaggatc ggccaccatg atgggaagca ccgggggtttc ttagcgcttg gaagctggct      480
gggagcgctt gggctccttc ccaggaccgc acgttcctag gactgagttg agtaacagca      540
cctggagact ggaacttttg agggctcctt agagttgtga gttcacagca ctgaagttcc      600
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ctgccccgtg tgccagatgt ccgaaagctg ggagttcgga gcgcccgggt tccttggccc      720
taggagccgc                                     730

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<210> 42

<211> 684

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1) ... (684)

<223> n = g, a, c or t

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<400> 42
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gggcagagca gagaagcctc agcgcccagc ctgggggaatt taaacactcc agcttccaag      120
agccaaggaa cttcagtgtc gtgaactcac aactctaagg agccctccaa agttccagtc      180
tccagggtgt gttactcaac tcagtccctag gaacgtcggg tcctgggaag gagcccaagc      240
gctcccagcc agcttccagg cgctaagaaa ccccggtgct tcccatcatg gtggccgatc      300
ctcctcgaga ctccaagggg ctgcgagcgg cggagcccac cgccaacggg ggcctggcgc      360
tggcctccat cgaggaccaa ggcgcggcag caggcggtta ctgcggttcc cgggaccagg      420
tgccgcgctg ccttcgagcc aacctgcttg tctgctgac agtggtggcc gtggtggccg      480
gcgtggcgct gggactgggg gtgtcggggg ccgggggtgc gctggcgctg ggcctggagc      540
gcttgagcgc cttcgtcttc ccgggcgagc cggaacccag cacactggag ccaccgctgc      600
caccggcctt ggcggcctcc tccttgtaga gctcgtccat gccgagagaa gggcgaattc      660
tgcagatatn catcacactg gcgg                                     684

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<210> 43

<211> 2856

<212> DNA

<213> Homo sapiens

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<400> 43
gtaaccgcta ctcccggaca ccagaccacc gccttccgta cacagggggc cgcattccac      60
cctcccggac ctaagagcct ggggtcccctg tttccggagg tccgcttccc ggcccccaga      120
ttctggcatc ccagccctca gtgtccaaga ccagggcagc ccgggtcccc gcctcccgga      180
tccaggcgtc cgggatctgc gccaccagaa cctagcctcc tgcagacctc cgccatctgg      240
gggcaactca cctcctggag ccaagggccc caggtcccac ccagagaaac tctcgtattc      300
ccagctccta gggccaagga acccgggcgc tccgaactcc cagctttcgg acatctggca      360
cacggggcag agcagagaag ctacgcgcc agcctgggga atttaaacac tccagcttcc      420
aagagccaag gaacttcagt gctgtgaact cacaactcta aggagccctc caaagttcca      480
gtctccaggt gctgttactc aactcagtcc taggaacgtc gggctcctggg aaggagccca      540
agcgtcctca gccagcttcc aggcgctaag aaaccccggt gcttcccatc atggtggccg      600
atcctcctcg agactccaag gggctcgag cggcggagcc caccgccaac gggggcctgg      660
cgctggcctc catcgaggac caaggcgcg cagcaggcgg ctactgcggt tcccgggacc      720
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<210> 44
 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 44

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			20					25					30		
Ala	Ala	Ala	Gly	Gly	Tyr	Cys	Gly	Ser	Arg	Asp	Gln	Val	Arg	Arg	Cys
			35				40					45			
Leu	Arg	Ala	Asn	Leu	Leu	Val	Leu	Leu	Thr	Val	Val	Ala	Val	Val	Ala
	50					55					60				
Gly	Val	Ala	Leu	Gly	Leu	Gly	Val	Ser	Gly	Ala	Gly	Gly	Ala	Leu	Ala
65					70					75					80
Leu	Gly	Pro	Glu	Arg	Leu	Ser	Ala	Phe	Val	Phe	Pro	Gly	Glu	Leu	Leu
				85					90					95	
Leu	Arg	Leu	Leu	Arg	Met	Ile	Ile	Leu	Pro	Leu	Val	Val	Cys	Ser	Leu
				100				105					110		
Ile	Gly	Gly	Ala	Ala	Ser	Leu	Asp	Pro	Gly	Ala	Leu	Gly	Arg	Leu	Gly
			115				120					125			
Ala	Trp	Ala	Leu	Leu	Phe	Phe	Leu	Val	Thr	Thr	Leu	Leu	Ala	Ser	Ala
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Leu	Gly	Val	Gly	Leu	Ala	Leu	Ala	Leu	Gln	Pro	Gly	Ala	Ala	Ser	Ala
145					150					155					160
Ala	Ile	Asn	Ala	Ser	Val	Gly	Ala	Ala	Gly	Ser	Ala	Glu	Asn	Ala	Pro
				165					170					175	

Ser	Lys	Glu	Val	Leu	Asp	Ser	Phe	Leu	Asp	Leu	Ala	Arg	Asn	Ile	Phe
			180					185					190		
Pro	Ser	Asn	Leu	Val	Ser	Ala	Ala	Phe	Arg	Ser	Tyr	Ser	Thr	Thr	Tyr
		195					200					205			
Glu	Glu	Arg	Asn	Ile	Thr	Gly	Thr	Arg	Val	Lys	Val	Pro	Val	Gly	Gln
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Glu	Val	Glu	Gly	Met	Asn	Ile	Leu	Gly	Leu	Val	Val	Phe	Ala	Ile	Val
225					230					235					240
Phe	Gly	Val	Ala	Leu	Arg	Lys	Leu	Gly	Pro	Glu	Gly	Glu	Leu	Leu	Ile
			245						250					255	
Arg	Phe	Phe	Asn	Ser	Phe	Asn	Glu	Ala	Thr	Met	Val	Leu	Val	Ser	Trp
			260					265						270	
Ile	Met	Trp	Tyr	Ala	Pro	Val	Gly	Ile	Met	Phe	Leu	Val	Ala	Gly	Lys
	275						280					285			
Ile	Val	Glu	Met	Glu	Asp	Val	Gly	Leu	Leu	Phe	Ala	Arg	Leu	Gly	Lys
	290					295					300				
Tyr	Ile	Leu	Cys	Cys	Leu	Leu	Gly	His	Ala	Ile	His	Gly	Leu	Leu	Val
305					310					315					320
Leu	Pro	Leu	Ile	Tyr	Phe	Leu	Phe	Thr	Arg	Lys	Asn	Pro	Tyr	Arg	Phe
			325						330					335	
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		340						345					350		
Ser	Ser	Ala	Thr	Leu	Pro	Leu	Met	Met	Lys	Cys	Val	Glu	Glu	Asn	Asn
		355					360					365			
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Val	Asn	Met	Asp	Gly	Ala	Ala	Leu	Phe	Gln	Cys	Val	Ala	Ala	Val	Phe
385					390					395					400
Ile	Ala	Gln	Leu	Ser	Gln	Gln	Ser	Leu	Asp	Phe	Val	Lys	Ile	Ile	Thr
			405						410					415	
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		420						425					430		
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		435				440						445			
Pro	Val	Asp	His	Ile	Ser	Leu	Ile	Leu	Ala	Val	Asp	Trp	Leu	Val	Asp
	450					455					460				
Arg	Ser	Cys	Thr	Val	Leu	Asn	Val	Glu	Gly	Asp	Ala	Leu	Gly	Ala	Gly
465					470					475					480
Leu	Leu	Gln	Asn	Tyr	Val	Asp	Arg	Thr	Glu	Ser	Arg	Ser	Thr	Glu	Pro
			485						490					495	
Glu	Leu	Ile	Gln	Val	Lys	Ser	Glu	Leu	Pro	Leu	Asp	Pro	Leu	Pro	Val
		500						505					510		
Pro	Thr	Glu	Glu	Gly	Asn	Pro	Leu	Leu	Lys	His	Tyr	Arg	Gly	Pro	Ala
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Gly	Asp	Ala	Thr	Val	Ala	Ser	Glu	Lys	Glu	Ser	Val	Met			
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<210> 45

<211> 781

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(781)

<223> n = g, a, c or t

<400> 45

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atcaccttca	ggtcaggatg	atgcggtccg	cttgggcatc	ccgcgncctta	caccttgccg	180

ttgatgatgc	gcaccgtctc	cgagaagggc	gaaatgagggc	gggcagcagt	ccggggctgc	240
ccccctgcag	ggtccgggcg	ggggcagggg	acggcgggac	atacggttgg	gcaagnccggg	300
ccggcgaatg	ttccttatac	ttgaagcccc	ggttgccacg	ggattagacg	cctttgggag	360
attgcacgca	tatggggcaa	aggaagggcn	accttgggcg	cctcgggcnt	ttngacacgg	420
aaggnaaaat	tgccacattc	cacttgaatt	tgcgccagaa	tangggcncc	cacttnctgt	480
agcgaccact	ttgggcccc	cacggggang	gnacgccgtt	tatcatcaaa	gagggaaaag	540
gcngaaaaaa	aaaagcgtn	tatcagtaga	ggggacaggg	gaattattag	gggggattac	600
cccccccagt	tacaatttta	ccatatttga	ggaggagncc	gcccanaagta	ttaaacatag	660
gacgtgttnc	aaacggggac	nttacaccag	cattancaat	ttccgcaatt	tattatagta	720
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g						781

```

<210> 46
<211> 733
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(733)
<223> n = g, a, c or t

```

<400> 46						
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aaaaggagag	ggagcgtgag	ctgtatgggc	ccaagaagag	gggacccaaa	cccaaaactt	120
tcctcctgaa	ggcgcgggccc	caggccgagg	ccctntccgc	atcagtgatg	tgcatttctc	180
tgtcaagccg	agcgccagtg	cctcctcgcc	caagctgcac	tccagcgag	ccgtgcaccg	240
gctcaagaag	gacatccgcc	gctgccaccg	tatgtcccg	cgtccccctgc	cccggcccga	300
cccgagggg	ggcagccccg	gactgcgccc	gcccatttctg	cccttctcgg	agacgggtgcg	360
catcatcaac	cgccaaggtg	aagccgcggg	agcccaaggc	ggaaccgcat	catcctgaac	420
ctgaagtgta	tcggaacaag	ggcgttgga	cggcaggggg	cgccgggcaa	gggggcccgg	480
gacgttgccc	cgcccaaaaa	aaggntcncc	catcngcggg	gaaacccggc	ggtgtaatag	540
gggcaaaag	gcaagaacag	gtaccaggca	aaggaagccg	ggtcacatgg	caggtncgcg	600
gncanagaaa	ccccagcaac	acttgggagg	ccacaccggg	tngcncaacc	ggacctttng	660
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gggggcgaaa	ttc					733

```

<210> 47
<211> 776
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(776)
<223> n = g, a, c or t

```

<400> 47						
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aaaaggagag	ggagcgtgag	ctgtatgggc	ccaagaagag	gggacccaaa	cccaaaactt	120
tcctcctgaa	ggcgtgggccc	caggccgagg	ccctccgcat	cagtgatgtg	catttctctg	180
tcaagccgag	cgccagtgcc	tcctcgccca	agctgcactc	cagcgagacc	gtgcaccggc	240
tcaagaagga	catccgcgcg	tgccaccgta	tgtcccgccg	tcccctgccc	cgcccggacc	300
cgcagggggg	caagccccgg	aactgngccc	gcccatttctc	gcccttctcg	gagaccggtg	360
cgcacatca	accgcaagtg	aagccgcggg	agccaagcgg	aaccgatcat	cctgaaacct	420
gaaggtgatc	ggacaagggc	gctggcgggc	gggggcgccc	ggcagggggg	ccggggggcg	480
ctgggccccg	gccccccaaa	anagtcccc	accatcaggg	cgagggaaaa	ccccgggagg	540
anaaagtagc	gggcaaaaang	aagccaanag	gaaangttca	acaaggagag	agaacgnga	600
cgaccanggc	tgatccccg	ggaagagaaa	cgcnchnaagg	caaaacaaga	ttgggagaag	660
cnacaacngg	tgagcacaac	agccggggcc	actaggcggc	gggnacctac	cctcccctat	720
tggaaacgcag	cnncggggcan	caattgccga	gaaagaaagg	ggggcgaatt	ctncga	776

<210> 48
 <211> 389
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(389)
 <223> n = g, a, c or t

<400> 48	
acgcaggacg ctctcgctga acttcttgct cttgcctata acgcggttcc gcgaggggac	60
tttggggcgg gccagcgccc cgccccctt gcccggcgcc cccgcgggcc agcgcccttg	120
tcgatcaccg ttcaggttca ggatgatgcg gttccggctt tgggcatccc ggggggcttc	180
acctttgcng ggttgactga tgcgcaccgg acatctgaga aagggcgaaa tgggacggga	240
cgcagatccg gggcntgccc ccccttgcc ggggggactt cccaggggca cggggganga	300
caagggggga acggggacgg gtgaaccaat taccgnggtt gggccagccg ggcggggaat	360
gggtcccttc ttggaagacc gggtgccaa	389

<210> 49
 <211> 313
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(313)
 <223> n = g, a, c or t

<400> 49	
acgcaggacg ctctcgctga acttcttgct cttgcttata acgcggttcc gcgaggggac	60
tttggggcgg gccagcgccc ggccccctt ccttggagcc cccgcgcgca gcaggcccat	120
tgtcagaatt caacctttca aggntncaag ggatgaattg cgnggtcccg gctntatggg	180
gattccncag aagggaacttt tcaacctttt gccagggata tggaaactgg natattgccg	240
ccaaaccccg gggtnactcc ccagaaagga aaaagggggg cgggaaaaaa tttgggcgct	300
gggggcccgc ggc	313

<210> 50
 <211> 258
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(258)
 <223> n = g, a, c or t

<400> 50	
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ctttggggcg gccagcgccc cgggccccct tgccccgggc ccccgcccg ctagcgggcc	120
tttgtcggat caaccttcag gtcaggatga tgcgggtccg ctttgggctt cccggcgggg	180
ttcaccttgc gggttgatga tgcggcaacc cgggtccttc ccagaagaac agggggcgga	240
caattggngc gcaggggc	258

<210> 51
 <211> 360
 <212> DNA
 <213> Homo sapiens

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<220>
<221> modified_base
<222> (1)...(360)
<223> n = g, a, c or t

<400> 51
acgcaggacg ctctcgctga acttcttgct cttgcctata acgcggttcc gcgaggggac      60
tttggggcgg gccagcgccc cggccccccct gcccggggccc ccgcgcgcag cgcccttgct      120
gatcaccttc aggtncagga tgatgcggtt ccgcttgggc tcccgcggct tcaccttgcg      180
gttgatgatg cgcaccgtct ccgagaaggg cgaaatgggc gggcgagtc cggggctgcc      240
cccccttgcg ggatccgggc ggggcagggg accggcgggc accatacggg ggcagcggcg      300
ggaatgtcct tcttgaagcc ggtgcacggc ttgcgcttga agttgcagct tgggccaagg      360

<210> 52
<211> 365
<212> DNA
<213> Homo sapiens

<400> 52
acagcacttg ggagcccag gagaacatcc tggactcgcg gctcattgca gccttcgaac      60
aaaaggagag ggagcgtgag ctgtatgggc ccaagaagag gggacccaaa cccaaaactt      120
tcctcctgaa ggcgcgggcc caggccgagg cctccgcgat cagtgatgtg catttctctg      180
tcaagccgag cgccagtgcc tcctcgccca agctgcactc cagcgcagcc gtgcaccggc      240
tcaagaagga catccgccgc tgccaccgta tgtcccgccg tcccctgccc cgcccggacc      300
cgcagggggg cagccccgga ctgcgcccgc ccatttcgcc cttctcagag acggtgcgca      360
tcatac
tcatac

<210> 53
<211> 539
<212> DNA
<213> Homo sapiens

<400> 53
gacgcaggac gctctcgctg aacttcttgg ctcttgccca taaacggggt ccgcgagggg      60
actttggggc gggccagcgc cccggcccccc tgcccggggc ccgcgcgcgc cctttatacc      120
ttcagttcag atgatgcggt tccgcttggg ctcccgcggc ttcaccttgc ggttgatgat      180
gcgcaccgtc tccgagaagg gcgaaatggg cgggcgcagt ccgggggctgc ccccctgcgg      240
gtccggggcg ggagggggac ggccgggacat acggtggcag cggcggatgt ctttcttgag      300
ccggtgcacg gctgcgctgg agtgcagctt gggcgaggag gcaactggcg tcggcttgac      360
agagaaatgc acatcactga tgcggagggc ctcggccttg gcccgcgcct tcaggaggaa      420
agttttgggt ttgggtcccc tcttcttggg ccataacagc tcacgctccc tctccttttg      480
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<210> 54
<211> 644
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(644)
<223> n = g, a, c or t

<400> 54
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aaaaggagag ggagcgtgag ctgtatgggc ccaagaagag gggacccaaa cccaaaactt      120
tcctcctgaa ggcgcgggcc caggccgagg cctccgcgat cagtgatgtg catttctctg      180
tcaagccgag cgccagtgcc tcctcgccca agctgcactc cagcgcagcc gtgcaccggc      240
tcaagaagga catccgccgc tgccaccgta tgtcccgccg tcccctgccc cgcccggacc      300
cgcagggggg cagccccgga ctgcgcccgc ccatttcgcc cttctcggag acggtgcgca      360
tcatcaaccg caaggtgaag ccgcggggag ccaagcggaa ccgcatcatc ctgaacctga      420

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aggtgatcga	caagggcgct	ggcggcggga	ggcgccgggc	agggggccgg	gncgctggcc	480
cgccccaaa	gtccctcgc	ggaaacccgc	ggtaaatagg	caaagaagca	aggaaggtca	540
ggcgagaggc	ggtccctgcg	tccgnagaaa	cccagcacac	ctggacggcc	accgatgcca	600
cnggcctggg	ggactcctcc	tggtacacgg	tcggcacatg	ccgg		644

<210> 55
 <211> 424
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(424)
 <223> n = g, a, c or t

<400> 55						
acagcacttg	ggagcccag	gagaacatcc	tggtactcgcg	gctcattgca	gccttcgaac	60
aaaaggagag	ggagcgtgag	ctgtatgggc	ccaagaagag	gggacccaaa	cccaaaactt	120
tcctcctgaa	ggcgcgggcc	caggccgagg	ccctccgcac	cagtgatgtg	cattttctctg	180
tcaagccgag	cgccagtgc	tcctcgccca	agctgcactc	cagcgcagcc	gtgcaccggc	240
tcaagaagga	catccgccgc	tgccaccgta	tgtcccgccg	tccctgccc	cgcccgacc	300
cgcagggggg	cagccccgga	ctgcgccgc	ccattatcag	cccttctcgg	agacgggtgcg	360
catcatcaac	cgcaaggtga	agccgcggga	gcccgaagcgg	aancgcatca	tccatgaacc	420
tgaa						424

<210> 56
 <211> 506
 <212> DNA
 <213> Homo sapiens

<400> 56						
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tttggggcgg	gccagcgccc	cgccccctg	ccggcgccc	ccgcgcgcgc	gcccttgctg	120
atcaccttca	ggttcaggat	gatgcggttc	cgcttgggct	ccgcgggctt	caccttgccg	180
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ccctgcgggt	ccgggcgggg	caggggacgg	cgggacatac	ggtggcagcg	gcggatgtcc	300
ttcttgagcc	ggtgcacggc	tgcgctggag	tgagccttgg	gcgaggaggc	actggcgctc	360
ggcttgacag	agaaatgcac	atcactgatg	cggagggcct	cggcctgggc	ccgcgccttc	420
aggaggaaa	ttttgggttt	gggtccctc	ttcttgggccc	catacagctc	acgctccctc	480
tccttttgc	cgaaggctgc	aatgag				506

<210> 57
 <211> 6014
 <212> DNA
 <213> Homo sapiens

<400> 57						
attatgggct	gtgggtgccc	ctgagcaaga	tggagctgtc	tgcagtgggc	gagcgggtct	60
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<210> 58
<211> 412
<212> PRT
<213> Homo sapiens

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Ile Lys Arg Arg Ile Arg Lys Gly Arg Ile Glu Tyr Leu Val Lys Trp
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Lys Gly Trp Ala Ile Lys Tyr Ser Thr Trp Glu Pro Glu Glu Asn Ile
          35          40          45
Leu Asp Ser Arg Leu Ile Ala Ala Phe Glu Gln Lys Glu Arg Glu Arg
          50          55          60
Glu Leu Tyr Gly Pro Lys Lys Arg Gly Pro Lys Pro Lys Thr Phe Leu
          65          70          75          80
Leu Lys Ala Arg Ala Gln Ala Glu Ala Leu Arg Ile Ser Asp Val His
          85          90          95
Phe Ser Val Lys Pro Ser Ala Ser Ala Ser Ser Pro Lys Leu His Ser
          100          105          110
Ser Ala Ala Val His Arg Leu Lys Lys Asp Ile Arg Arg Cys His Arg
          115          120          125
Met Ser Arg Arg Pro Leu Pro Arg Pro Asp Pro Gln Gly Gly Ser Pro
          130          135          140
Gly Leu Arg Pro Pro Ile Ser Pro Phe Ser Glu Thr Val Arg Ile Ile
          145          150          155          160
Asn Arg Lys Val Lys Pro Arg Glu Pro Lys Arg Asn Arg Ile Ile Leu
          165          170          175
Asn Leu Lys Val Ile Asp Lys Gly Ala Gly Gly Gly Gly Ala Gly Gln
          180          185          190
Gly Ala Gly Ala Leu Ala Arg Pro Lys Val Pro Ser Arg Asn Arg Val
          195          200          205
Ile Gly Lys Ser Lys Lys Phe Ser Glu Ser Val Leu Arg Thr Gln Ile
          210          215          220

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Arg His Met Lys Phe Gly Ala Phe Ala Leu Tyr Lys Pro Pro Pro Ala
 225 230 235 240
 Pro Leu Val Ala Pro Ser Pro Gly Lys Ala Glu Ala Ser Ala Pro Gly
 245 250 255
 Pro Gly Leu Leu Leu Ala Ala Pro Ala Ala Pro Tyr Asp Ala Arg Ser
 260 265 270
 Ser Gly Ser Ser Gly Cys Pro Ser Pro Thr Pro Gln Ser Ser Asp Pro
 275 280 285
 Asp Asp Thr Pro Pro Lys Leu Leu Pro Glu Thr Val Ser Pro Ser Ala
 290 295 300
 Pro Ser Trp Arg Glu Pro Glu Val Leu Asp Leu Ser Leu Pro Pro Glu
 305 310 315 320
 Ser Ala Ala Thr Ser Lys Arg Ala Pro Pro Glu Val Thr Ala Ala Ala
 325 330 335
 Gly Pro Ala Pro Pro Thr Ala Pro Glu Pro Ala Gly Ala Ser Ser Glu
 340 345 350
 Pro Glu Ala Gly Asp Trp Arg Pro Glu Met Ser Pro Cys Ser Asn Val
 355 360 365
 Val Val Thr Asp Val Thr Ser Asn Leu Leu Thr Val Thr Ile Lys Glu
 370 375 380
 Phe Cys Asn Pro Glu Asp Phe Glu Lys Val Ala Ala Gly Val Ala Gly
 385 390 395 400
 Ala Ala Gly Gly Gly Ser Ile Gly Ala Ser Lys
 405 410

<210> 59
 <211> 108
 <212> DNA
 <213> Homo sapiens

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 catgaaacat cctatcatct gtaggctcat tcattttctct aacagcag 108

<210> 60
 <211> 108
 <212> DNA
 <213> Homo sapiens

<400> 60
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<210> 61
 <211> 110
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(110)
 <223> n = g, a, c or t

<400> 61
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<210> 62
 <211> 110
 <212> DNA
 <213> Homo sapiens

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 atcggggtag tccgagtaac gtcggggcat tccgatagg ccgagaaagt 110

<210> 63
 <211> 1570
 <212> DNA
 <213> Homo sapiens

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<210> 64
 <211> 513
 <212> PRT
 <213> Homo sapiens

<400> 64
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 Leu Ser Leu Leu Ile Arg Ala Glu Leu Gly Gln Pro Gly Asn Leu Leu
 35 40 45
 Gly Asn Asp His Ile Tyr Asn Val Ile Val Thr Ala His Ala Phe Val
 50 55 60
 Met Ile Phe Phe Met Val Met Pro Ile Met Ile Gly Gly Phe Gly Asn
 65 70 75 80
 Trp Leu Val Pro Leu Met Ile Gly Ala Pro Asp Met Ala Phe Pro Arg
 85 90 95
 Met Asn Asn Met Ser Phe Trp Leu Leu Pro Pro Ser Leu Leu Leu
 100 105 110
 Leu Ala Ser Ala Met Val Glu Ala Gly Ala Gly Thr Gly Trp Thr Val
 115 120 125

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145					150					155					160
Ala	Ile	Asn	Phe	Ile	Thr	Thr	Ile	Ile	Asn	Met	Lys	Pro	Pro	Ala	Met
				165					170						175
Thr	Gln	Tyr	Gln	Thr	Pro	Leu	Phe	Val	Trp	Ser	Val	Leu	Ile	Thr	Ala
			180					185					190		
Val	Leu	Leu	Leu	Leu	Ser	Leu	Pro	Val	Leu	Ala	Ala	Gly	Ile	Thr	Met
	195					200						205			
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Pro	Glu	Val	Tyr	Ile	Leu	Ile	Leu	Pro	Gly	Phe	Gly	Met	Ile	Ser	His
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Met	Val	Trp	Ala	Met	Met	Ser	Ile	Gly	Phe	Leu	Gly	Phe	Ile	Val	Trp
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Phe	Thr	Ser	Ala	Thr	Met	Ile	Ile	Ala	Ile	Pro	Thr	Gly	Val	Lys	Val
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Phe	Ser	Trp	Leu	Ala	Thr	Leu	His	Gly	Ser	Asn	Met	Lys	Trp	Ser	Ala
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Asp	Thr	Tyr	Tyr	Val	Val	Ala	His	Phe	His	Tyr	Val	Leu	Ser	Met	Gly
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Ser	Gly	Tyr	Thr	Leu	Asp	Gln	Thr	Tyr	Ala	Lys	Ile	His	Phe	Thr	Ile
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Lys	Val	Leu	Met	Val	Glu	Glu	Pro	Ser	Met	Asn	Leu	Glu	Trp	Leu	Tyr
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Ser															

<210> 65
 <211> 425
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
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 <223> n = g, a, c or t

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<400> 65
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ggaagaanac atgggtggcc ttcatgagcc ccatccgctc cactgtggnc cgcanactcc      180
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gccacaaagg gatccgtggn atcctgnccg gngtagtggc tgatganccg ggagccccct      360
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ctcct                                         425

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<210> 66
<211> 442
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(442)
<223> n = g, a, c or t

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<400> 66
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gatgccacgg atccctttgt ggccttccac atcaacaagg gccttgctga agaagtatat      180
gaactctctc ctgattggag aactgtctcc agagcagccc agctttgagc ccaccaagaa      240
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gaaggccaac catgtcttct tctgtctgta cctgctgcac atcttgctgc tggatgggtg      360
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<210> 67
<211> 1335
<212> DNA
<213> Homo sapiens

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<400> 67
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aaggtgtaca acatcagcga gttcaccgcg cggcatccag ggggctcccg ggtcatcagc      180
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<210> 68
 <211> 4213
 <212> DNA
 <213> Homo sapiens

<400> 68

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<210> 69

<211> 444

<212> PRT

<213> Homo sapiens

<400> 69

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Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Glu	Phe
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Thr	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
	50					55					60				
Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
65					70				75						80
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
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Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
			100					105					110		
Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn
		115					120					125			
His	Val	Phe	Phe	Leu	Leu	Tyr	Leu	Leu	His	Ile	Leu	Leu	Leu	Asp	Gly
	130					135					140				
Ala	Ala	Trp	Leu	Thr	Leu	Trp	Val	Phe	Gly	Thr	Ser	Phe	Leu	Pro	Phe
145					150				155						160
Leu	Leu	Cys	Ala	Val	Leu	Leu	Ser	Ala	Val	Gln	Ala	Gln	Ala	Gly	Trp
			165					170						175	
Leu	Gln	His	Asp	Phe	Gly	His	Leu	Ser	Val	Phe	Ser	Thr	Ser	Lys	Trp
		180					185						190		
Asn	His	Leu	Leu	His	His	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala	Pro
	195					200						205			
Ala	Ser	Trp	Trp	Asn	His	Met	His	Phe	Gln	His	His	Ala	Lys	Pro	Asn
	210				215						220				
Cys	Phe	Arg	Lys	Asp	Pro	Asp	Ile	Asn	Met	His	Pro	Phe	Phe	Phe	Ala
225					230				235						240
Leu	Gly	Lys	Ile	Leu	Ser	Val	Glu	Leu	Gly	Lys	Gln	Lys	Lys	Lys	Tyr
			245					250						255	
Met	Pro	Tyr	Asn	His	Gln	His	Lys	Tyr	Phe	Phe	Leu	Ile	Gly	Pro	Pro
		260					265						270		
Ala	Leu	Leu	Pro	Leu	Tyr	Phe	Gln	Trp	Tyr	Ile	Phe	Tyr	Phe	Val	Ile
	275					280						285			
Gln	Arg	Lys	Lys	Trp	Val	Asp	Leu	Ala	Trp	Met	Ile	Thr	Phe	Tyr	Val
	290					295					300				

Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
 305 310 315 320
 Gly Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp
 325 330 335
 Val Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn
 340 345 350
 Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
 355 360 365
 Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
 370 375 380
 His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
 385 390 395 400
 Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
 405 410 415
 Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
 420 425 430
 Ser Gly Gln Leu Trp Leu Asp Ala Tyr Leu His Gln
 435 440

<210> 70
 <211> 1044
 <212> DNA
 <213> Homo sapiens

<400> 70
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<210> 71
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 71
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 Thr Val Ile His Pro Lys Ala Arg Ile Ile Ala Glu Ala Gly Pro Ile
 35 40 45
 Val Ile Gly Glu Gly Asn Leu Ile Glu Glu Gln Ala Leu Ile Ile Asn
 50 55 60
 Ala Tyr Pro Asp Asn Ile Thr Pro Asp Thr Glu Asp Pro Glu Pro Lys
 65 70 75 80

Pro	Met	Ile	Ile	Gly	Thr	Asn	Asn	Val	Phe	Glu	Val	Gly	Cys	Tyr	Ser
				85					90					95	
Gln	Ala	Met	Lys	Met	Gly	Asp	Asn	Asn	Val	Ile	Glu	Ser	Lys	Ala	Tyr
			100					105					110		
Val	Gly	Arg	Asn	Val	Ile	Leu	Thr	Ser	Gly	Cys	Ile	Ile	Gly	Ala	Cys
			115					120					125		
Cys	Asn	Leu	Asn	Thr	Phe	Glu	Val	Ile	Pro	Glu	Asn	Thr	Val	Ile	Tyr
			130				135				140				
Gly	Ala	Asp	Cys	Leu	Arg	Arg	Val	Gln	Thr	Glu	Arg	Pro	Gln	Pro	Gln
					150					155					160
Thr	Leu	Gln	Leu	Asp	Phe	Leu	Met	Lys	Ile	Leu	Pro	Asn	Tyr	His	His
				165					170					175	
Leu	Lys	Lys	Thr	Met	Lys	Gly	Ser	Ser	Thr	Pro	Val	Lys	Asn		
			180					185					190		

<210> 72
 <211> 288
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(288)
 <223> n = g, a, c or t

<400> 72	
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agtgaagctc ttcctgggga caatgtgggc ttcaatgtca agaatgtgtc tgtcaaggat	180
gttcgtcgtg gcaacgtngc tgggtgacagc aaaaatgacc caccaatgga agcagctggc	240
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<210> 73
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 73	
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cacattcttg acattgaagc ccacattgtc cccaggaaga gcttcaactca aagcttcatg	180
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<210> 74
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 74	
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gaagctcttc ctggggacaa tgtgggcttc aatgtcaaga atgtgtctgt caaggatgtt	180
cgctgtggca acgttgctgg tgacagcaaa aatgacccac caatggaagc agctggcttc	240
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<210> 75
 <211> 285
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(285)
 <223> n = g, a, c or t

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 cacattcttg acattgaagc ccacattgtc cccaggaaga gcttcactca aagcttcatg 180
 gtgcatttcg acagatttta cttccgttgt aacggtgact ggagcaaagg tgaccaccat 240
 accgggtttg agaacaccag tctccactcg gccaacagga acagt 285

<210> 76
 <211> 1833
 <212> DNA
 <213> Homo sapiens

<400> 76
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 caccactact ggccatctga tctataaatg cgggtggcatc gacaaaagaa ccattgaaaa 180
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<210> 77
 <211> 462
 <212> PRT
 <213> Homo sapiens

<400> 77
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Met	Gly	Lys	Gly	Ser	Phe	Lys	Tyr	Ala	Trp	Val	Leu	Asp	Lys	Leu	Lys
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Ala	Glu	Arg	Glu	Arg	Gly	Ile	Thr	Ile	Asp	Ile	Ser	Leu	Trp	Lys	Phe
65					70				75						80
Glu	Thr	Ser	Lys	Tyr	Tyr	Val	Thr	Ile	Ile	Asp	Ala	Pro	Gly	His	Arg
			85					90						95	
Asp	Phe	Ile	Lys	Asn	Met	Ile	Thr	Gly	Thr	Ser	Gln	Ala	Asp	Cys	Ala
			100					105					110		
Val	Leu	Ile	Val	Ala	Ala	Gly	Val	Gly	Glu	Phe	Glu	Ala	Gly	Ile	Ser
	115						120					125			
Lys	Asn	Gly	Gln	Thr	Arg	Glu	His	Ala	Leu	Leu	Ala	Tyr	Thr	Leu	Gly
	130					135					140				
Val	Lys	Gln	Leu	Ile	Val	Gly	Val	Asn	Lys	Met	Asp	Ser	Thr	Glu	Pro
145					150					155					160
Pro	Tyr	Ser	Gln	Lys	Arg	Tyr	Glu	Glu	Ile	Val	Lys	Glu	Val	Ser	Thr
			165					170						175	
Tyr	Ile	Lys	Lys	Ile	Gly	Tyr	Asn	Pro	Asp	Thr	Val	Ala	Phe	Val	Pro
		180					185						190		
Ile	Ser	Gly	Trp	Asn	Gly	Asp	Asn	Met	Leu	Glu	Pro	Ser	Ala	Asn	Met
	195					200					205				
Pro	Trp	Phe	Lys	Gly	Trp	Lys	Val	Thr	Arg	Lys	Asp	Gly	Asn	Ala	Ser
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			245					250						255	
Gly	Gly	Ile	Gly	Thr	Val	Pro	Val	Gly	Arg	Val	Glu	Thr	Gly	Val	Leu
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Lys	Pro	Gly	Met	Val	Val	Thr	Phe	Ala	Pro	Val	Asn	Val	Thr	Thr	Glu
	275					280					285				
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305					310					315					320
Arg	Arg	Gly	Asn	Val	Ala	Gly	Asp	Ser	Lys	Asn	Asp	Pro	Pro	Met	Glu
			325					330						335	
Ala	Ala	Gly	Phe	Thr	Ala	Gln	Val	Ile	Ile	Leu	Asn	His	Pro	Gly	Gln
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	355					360					365				
Ala	Cys	Lys	Phe	Ala	Glu	Leu	Lys	Glu	Lys	Ile	Asp	Arg	Arg	Ser	Gly
	370				375					380					
Lys	Lys	Leu	Glu	Asp	Gly	Pro	Lys	Phe	Leu	Lys	Ser	Gly	Asp	Ala	Ala
385					390					395					400
Ile	Val	Asp	Met	Val	Pro	Gly	Lys	Pro	Met	Cys	Val	Glu	Ser	Phe	Ser
			405					410						415	
Asp	Tyr	Pro	Pro	Leu	Gly	Arg	Phe	Ala	Val	Arg	Asp	Met	Arg	Gln	Thr
		420					425						430		
Val	Ala	Val	Gly	Val	Ile	Lys	Ala	Val	Asp	Lys	Lys	Ala	Ala	Gly	Ala
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 <211> 106
 <212> DNA
 <213> Homo sapiens

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<210> 79
<211> 107
<212> DNA
<213> Homo sapiens

<400> 79
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<210> 80
<211> 110
<212> DNA
<213> Homo sapiens

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<223> n = g, a, c or t

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<212> DNA
<213> Homo sapiens

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 <211> 907
 <212> PRT
 <213> Homo sapiens

<400> 82

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			20					25					30		
Ala	Gly	Asn	Ser	Glu	Phe	Leu	Gly	Lys	Thr	Pro	Gly	Gln	Asn	Ala	Gln
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Lys	Trp	Ile	Pro	Ala	Arg	Ser	Thr	Arg	Arg	Asp	Asp	Asn	Ser	Ala	Ala
	50					55				60					
Asn	Asn	Ser	Ala	Asn	Glu	Lys	Glu	Arg	His	Asp	Ala	Ile	Phe	Arg	Lys
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Val	Arg	Gly	Ile	Leu	Asn	Lys	Leu	Thr	Pro	Glu	Lys	Phe	Asp	Lys	Leu
			85						90					95	
Cys	Leu	Glu	Leu	Leu	Asn	Val	Gly	Val	Glu	Ser	Lys	Leu	Ile	Leu	Lys
			100					105					110		
Gly	Val	Ile	Leu	Leu	Ile	Val	Asp	Lys	Ala	Leu	Glu	Glu	Pro	Lys	Tyr
		115				120						125			
Ser	Ser	Leu	Tyr	Ala	Gln	Leu	Cys	Leu	Arg	Leu	Ala	Glu	Asp	Ala	Pro
	130					135						140			

Asn	Phe	Asp	Gly	Pro	Ala	Ala	Glu	Gly	Gln	Pro	Gly	Gln	Lys	Gln	Ser	145	150	155	160
Thr	Thr	Phe	Arg	Arg	Leu	Leu	Ile	Ser	Lys	Leu	Gln	Asp	Glu	Phe	Glu	165	170		175
Asn	Arg	Thr	Arg	Asn	Val	Asp	Val	Tyr	Asp	Lys	Arg	Glu	Asn	Pro	Leu	180	185		190
Leu	Pro	Glu	Glu	Glu	Glu	Gln	Arg	Ala	Ile	Ala	Lys	Ile	Lys	Met	Leu	195	200		205
Gly	Asn	Ile	Lys	Phe	Ile	Gly	Glu	Leu	Gly	Lys	Leu	Asp	Leu	Ile	His	210	215		220
Glu	Ser	Ile	Leu	His	Lys	Cys	Ile	Lys	Thr	Leu	Leu	Glu	Lys	Lys	Lys	225	230		240
Arg	Val	Gln	Leu	Lys	Asp	Met	Gly	Glu	Asp	Leu	Glu	Cys	Leu	Cys	Gln	245	250		255
Ile	Met	Arg	Thr	Val	Gly	Pro	Arg	Leu	Asp	His	Glu	Arg	Ala	Lys	Ser	260	265		270
Leu	Met	Asp	Gln	Tyr	Phe	Ala	Arg	Met	Cys	Ser	Leu	Met	Leu	Ser	Lys	275	280		285
Glu	Leu	Pro	Ala	Arg	Ile	Arg	Phe	Leu	Leu	Gln	Asp	Thr	Val	Glu	Leu	290	295		300
Arg	Glu	His	His	Trp	Val	Pro	Arg	Lys	Ala	Phe	Leu	Asp	Asn	Gly	Pro	305	310		320
Lys	Thr	Ile	Asn	Gln	Ile	Arg	Gln	Asp	Ala	Val	Lys	Asp	Leu	Gly	Val	325	330		335
Phe	Ile	Pro	Ala	Pro	Met	Ala	Gln	Gly	Met	Arg	Ser	Asp	Phe	Phe	Leu	340	345		350
Glu	Gly	Pro	Phe	Met	Pro	Pro	Arg	Met	Lys	Met	Asp	Arg	Asp	Pro	Leu	355	360		365
Gly	Gly	Leu	Ala	Asp	Met	Phe	Gly	Gln	Met	Pro	Gly	Ser	Gly	Ile	Gly	370	375		380
Thr	Gly	Pro	Gly	Val	Ile	Gln	Asp	Arg	Phe	Ser	Pro	Thr	Met	Gly	Arg	385	390		400
His	Arg	Ser	Asn	Gln	Leu	Phe	Asn	Gly	His	Gly	Gly	His	Ile	Met	Pro	405	410		415
Pro	Thr	Gln	Ser	Gln	Phe	Gly	Glu	Met	Gly	Gly	Lys	Phe	Met	Lys	Ser	420	425		430
Gln	Gly	Leu	Ser	Gln	Leu	Tyr	His	Asn	Gln	Ser	Gln	Gly	Leu	Leu	Ser	435	440		445
Gln	Leu	Gln	Gly	Gln	Ser	Lys	Asp	Met	Pro	Pro	Arg	Phe	Ser	Lys	Lys	450	455		460
Gly	Gln	Leu	Asn	Ala	Asp	Glu	Ile	Ser	Leu	Arg	Pro	Ala	Gln	Ser	Phe	465	470		480
Leu	Met	Asn	Lys	Asn	Gln	Val	Pro	Lys	Leu	Gln	Pro	Gln	Ile	Thr	Met	485	490		495
Ile	Pro	Pro	Ser	Ala	Gln	Pro	Pro	Arg	Thr	Gln	Thr	Pro	Pro	Leu	Gly	500	505		510
Gln	Thr	Pro	Gln	Leu	Gly	Leu	Lys	Thr	Asn	Pro	Pro	Leu	Ile	Gln	Glu	515	520		525
Lys	Pro	Ala	Lys	Thr	Ser	Lys	Lys	Pro	Pro	Pro	Ser	Lys	Glu	Glu	Leu	530	535		540
Leu	Lys	Leu	Thr	Glu	Thr	Val	Val	Thr	Glu	Tyr	Leu	Asn	Ser	Gly	Asn	545	550		560
Ala	Asn	Glu	Ala	Val	Asn	Gly	Val	Arg	Glu	Met	Arg	Ala	Pro	Lys	His	565	570		575
Phe	Leu	Pro	Glu	Met	Leu	Ser	Lys	Val	Ile	Ile	Leu	Ser	Leu	Asp	Arg	580	585		590
Ser	Asp	Glu	Asp	Lys	Glu	Lys	Ala	Ser	Ser	Leu	Ile	Ser	Leu	Leu	Lys	595	600		605
Gln	Glu	Gly	Ile	Ala	Thr	Ser	Asp	Asn	Phe	Met	Gln	Ala	Phe	Leu	Asn	610	615		620

Val Leu Asp Gln Cys Pro Lys Leu Glu Val Asp Ile Pro Leu Val Lys
 625 630 635 640
 Ser Tyr Leu Ala Gln Phe Ala Ala Arg Ala Ile Ile Ser Glu Leu Val
 645 650 655
 Ser Ile Ser Glu Leu Ala Gln Pro Leu Glu Ser Gly Thr His Phe Pro
 660 665 670
 Leu Phe Leu Leu Cys Leu Gln Gln Leu Ala Lys Leu Gln Asp Arg Glu
 675 680 685
 Trp Leu Thr Glu Leu Phe Gln Gln Ser Lys Val Asn Met Gln Lys Met
 690 695 700
 Leu Pro Glu Ile Asp Gln Asn Lys Asp Arg Met Leu Glu Ile Leu Glu
 705 710 715 720
 Gly Lys Gly Leu Ser Phe Leu Phe Pro Leu Leu Lys Leu Glu Lys Glu
 725 730 735
 Leu Leu Lys Gln Ile Lys Leu Asp Pro Ser Pro Gln Thr Ile Tyr Lys
 740 745 750
 Trp Ile Lys Asp Asn Ile Ser Pro Lys Leu His Val Asp Lys Gly Phe
 755 760 765
 Val Asn Ile Leu Met Thr Ser Phe Leu Gln Tyr Ile Ser Ser Glu Val
 770 775 780
 Asn Pro Pro Ser Asp Glu Thr Asp Ser Ser Ser Ala Pro Ser Lys Glu
 785 790 795 800
 Gln Leu Glu Gln Glu Lys Gln Leu Leu Leu Ser Phe Lys Pro Val Met
 805 810 815
 Gln Lys Phe Leu His Asp His Val Asp Leu Gln Val Ser Ala Leu Tyr
 820 825 830
 Ala Leu Gln Val His Cys Tyr Asn Ser Asn Phe Pro Lys Gly Met Leu
 835 840 845
 Leu Arg Phe Phe Val His Phe Tyr Asp Met Glu Ile Ile Glu Glu Glu
 850 855 860
 Ala Phe Leu Ala Trp Lys Glu Asp Ile Thr Gln Glu Phe Pro Gly Lys
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 <212> DNA
 <213> Homo sapiens

<400> 83
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<210> 84
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 <212> DNA
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<210> 85
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 <223> n = g, a, c or t

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cggccgctcg	actagtctga	ggtctgaata	ctcaactgaa	ctgtacgtaa	aaacaaaaaa	180
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aaaaaa						305

<210> 86
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 <212> DNA
 <213> Homo sapiens

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35          40          45
Phe Thr Arg Trp Cys Asn Glu His Leu Lys Cys Val Ser Lys Arg Ile
50          55          60
Ala Asn Leu Gln Thr Asp Leu Ser Asp Gly Leu Arg Leu Ile Ala Leu
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 2290 2295 2300
 Tyr Glu Val Ser Val Lys Phe Asn Glu Glu His Ile Pro Asp Ser Pro
 2305 2310 2315 2320
 Phe Val Val Pro Val Ala Ser Pro Ser Gly Asp Ala Arg Arg Leu Thr
 2325 2330 2335
 Val Ser Ser Leu Gln Glu Ser Gly Leu Lys Val Asn Gln Pro Ala Ser
 2340 2345 2350
 Phe Ala Val Ser Leu Asn Gly Ala Lys Gly Ala Ile Asp Ala Lys Val
 2355 2360 2365
 His Ser Pro Ser Gly Ala Leu Glu Glu Cys Tyr Val Thr Glu Ile Asp
 2370 2375 2380
 Gln Asp Lys Tyr Ala Val Arg Phe Ile Pro Arg Glu Asn Gly Val Tyr
 2385 2390 2395 2400
 Leu Ile Asp Val Lys Phe Asn Gly Thr His Ile Pro Gly Ser Pro Phe
 2405 2410 2415
 Lys Ile Arg Val Gly Glu Pro Gly His Gly Gly Asp Pro Gly Leu Val
 2420 2425 2430
 Ser Ala Tyr Gly Ala Gly Leu Glu Gly Gly Val Thr Gly Asn Pro Ala
 2435 2440 2445
 Glu Phe Val Val Asn Thr Ser Asn Ala Gly Ala Gly Ala Leu Ser Val
 2450 2455 2460
 Thr Ile Asp Gly Pro Ser Lys Val Lys Met Asp Cys Gln Glu Cys Pro
 2465 2470 2475 2480
 Glu Gly Tyr Arg Val Thr Tyr Thr Pro Met Ala Pro Gly Ser Tyr Leu
 2485 2490 2495

Ile Ser Ile Lys Tyr Gly Gly Pro Tyr His Ile Gly Gly Ser Pro Phe
2500 2505 2510
Lys Ala Lys Val Thr Gly Pro Arg Leu Val Ser Asn His Ser Leu His
2515 2520 2525
Glu Thr Ser Ser Val Phe Val Asp Ser Leu Thr Lys Ala Thr Cys Ala
2530 2535 2540
Pro Gln His Gly Ala Pro Gly Pro Gly Pro Ala Asp Ala Ser Lys Val
2545 2550 2555 2560
Val Ala Lys Gly Leu Gly Leu Ser Lys Ala Tyr Val Gly Gln Lys Ser
2565 2570 2575
Ser Phe Thr Val Asp Cys Ser Lys Ala Gly Asn Asn Met Leu Leu Val
2580 2585 2590
Gly Val His Gly Pro Arg Thr Pro Cys Glu Glu Ile Leu Val Lys His
2595 2600 2605
Val Gly Ser Arg Leu Tyr Ser Val Ser Tyr Leu Leu Lys Asp Lys Gly
2610 2615 2620
Glu Tyr Thr Leu Val Val Lys Trp Gly His Glu His Ile Pro Gly Ser
2625 2630 2635 2640
Pro Tyr Arg Val Val Val Pro
2645

<210> 88
<211> 100
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(100)
<223> n = g, a, c or t

<400> 88
ccgcgagggc agcggcgggc gcaagatggc ggacttctctg ccgtcgcggt ccgtgctgtc 60
cgtgtgcttc cccgggnctg cctgctgacg agtggcgagg 100

<210> 89
<211> 1402
<212> DNA
<213> Homo sapiens

<400> 89
tggggccgga gagggcgga ggcggcgggc gcggcgggcaa gatggcggac ttcctgccgt 60
cgcggtccgt gctgtccgtg tgcttccccg gctgcctgct gacgagtggc gaggcgagc 120
agcaacgcaa gtccaaggag atcgacaaat gcctgtctcg ggaaaagacc tatgtgaagc 180
ggctggtgaa gatcctgctg ctgggcgcgg gcgagagcgg caagtccacc ttcctgaagc 240
agatgcgga catccacggg caggacttcg accagcgcgc gcgcgaggag ttccgcccc 300
ccatctacag caacgtgatc aaaggtatga ggggtgctggt tgatgctcga gagaagcttc 360
atattccctg gggagacaac tcaaaccaac aacatggaga taagatgatg tcgtttgata 420
cccgggcccc catggcagcc caaggaatgg tggaaacaag ggttttctta caatatcttc 480
ctgctataag agcattatgg gcagacagcg gcatacagaa tgcttatgac cggcgctcga 540
aatttcaact gggatgaatc gtaaaatatt tcttgataa cttggataaa cttggagaac 600
cagattatat tccatcacia caagatatc tgcttgccag aagaccacc aaaggcatcc 660
atgaatacga ctttgaaata aaaaatgttc ctttcaaaat gcttgatgta ggtggtcaga 720
gatcagaaag gaaacgttg tttgaatggt tgcacagtgt gacatcaata cttttccttg 780
tttccctcaag tgaatttgac cagggtgctta tggaagatcg actgaccaat cgccttacag 840
agtctctgaa catttttgaa acaatcgtca ataaccgggt tttcagcaat gtctccataa 900
ttctgttctt aaacaagaca gacttgcttg aggagaagg gcaaattgtg agcatcaaag 960
actatttctt agaatttgaa ggggatcccc actgcttaag agacgtccaa aaattcctgg 1020
tggaatgttt ccggaacaaa cgccgggacc agcaacagaa gcccttatac caccacttca 1080
ccactgctat caacacggag aacatccgcc ttgttttccg cgacgtgaag gatactattc 1140
tgcatacaca cctcaagcag cttatgctac agtgatgtac aaaagacttg ctgtttta 1200

atctttttgtg	gtttttgatg	ttttctgttt	gttttgtttt	ttaaaatagc	agttttacaac	1260
cagaattaga	acaatcttaa	ttctacgttt	aacttcttga	aaatcttagt	actttttctg	1320
cggcctttgg	tttgtggctg	aaagctgttg	agtgactcat	cgccaagatt	tgctgtaatg	1380
caggctttga	tctgtttcac	cc				1402

<210> 90
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 90

Met	Ala	Asp	Phe	Leu	Pro	Ser	Arg	Ser	Val	Leu	Ser	Val	Cys	Phe	Pro
1				5					10					15	
Gly	Cys	Leu	Leu	Thr	Ser	Gly	Glu	Ala	Glu	Gln	Gln	Arg	Lys	Ser	Lys
		20					25						30		
Glu	Ile	Asp	Lys	Cys	Leu	Ser	Arg	Glu	Lys	Thr	Tyr	Val	Lys	Arg	Leu
	35					40					45				
Val	Lys	Ile	Leu	Leu	Leu	Gly	Ala	Gly	Glu	Ser	Gly	Lys	Ser	Thr	Phe
	50				55					60					
Leu	Lys	Gln	Met	Arg	Ile	His	Gly	Gln	Asp	Phe	Asp	Gln	Arg	Ala	
65				70				75						80	
Arg	Glu	Glu	Phe	Arg	Pro	Thr	Ile	Tyr	Ser	Asn	Val	Ile	Lys	Gly	Met
			85					90					95		
Arg	Val	Leu	Val	Asp	Ala	Arg	Glu	Lys	Leu	His	Ile	Pro	Trp	Gly	Asp
		100					105						110		
Asn	Ser	Asn	Gln	Gln	His	Gly	Asp	Lys	Met	Met	Ser	Phe	Asp	Thr	Arg
	115					120						125			
Ala	Pro	Met	Ala	Ala	Gln	Gly	Met	Val	Glu	Thr	Arg	Val	Phe	Leu	Gln
	130				135						140				
Tyr	Leu	Pro	Ala	Ile	Arg	Ala	Leu	Trp	Ala	Asp	Ser	Gly	Ile	Gln	Asn
145				150					155					160	
Ala	Tyr	Asp	Arg	Arg	Arg	Glu	Phe	Gln	Leu	Gly	Glu	Ser	Val	Lys	Tyr
			165					170						175	
Phe	Leu	Asp	Asn	Leu	Asp	Lys	Leu	Gly	Glu	Pro	Asp	Tyr	Ile	Pro	Ser
		180					185					190			
Gln	Gln	Asp	Ile	Leu	Leu	Ala	Arg	Arg	Pro	Thr	Lys	Gly	Ile	His	Glu
	195					200						205			
Tyr	Asp	Phe	Glu	Ile	Lys	Asn	Val	Pro	Phe	Lys	Met	Leu	Asp	Val	Gly
	210				215					220					
Gly	Gln	Arg	Ser	Glu	Arg	Lys	Arg	Trp	Phe	Glu	Cys	Phe	Asp	Ser	Val
225				230					235					240	
Thr	Ser	Ile	Leu	Phe	Leu	Val	Ser	Ser	Ser	Glu	Phe	Asp	Gln	Val	Leu
			245					250					255		
Met	Glu	Asp	Arg	Leu	Thr	Asn	Arg	Leu	Thr	Glu	Ser	Leu	Asn	Ile	Phe
		260					265						270		
Glu	Thr	Ile	Val	Asn	Asn	Arg	Val	Phe	Ser	Asn	Val	Ser	Ile	Ile	Leu
	275					280						285			
Phe	Leu	Asn	Lys	Thr	Asp	Leu	Leu	Glu	Glu	Lys	Val	Gln	Ile	Val	Ser
	290					295					300				
Ile	Lys	Asp	Tyr	Phe	Leu	Glu	Phe	Glu	Gly	Asp	Pro	His	Cys	Leu	Arg
305				310					315					320	
Asp	Val	Gln	Lys	Phe	Leu	Val	Glu	Cys	Phe	Arg	Asn	Lys	Arg	Arg	Asp
			325					330					335		
Gln	Gln	Gln	Lys	Pro	Leu	Tyr	His	His	Phe	Thr	Thr	Ala	Ile	Asn	Thr
	340					345						350			
Glu	Asn	Ile	Arg	Leu	Val	Phe	Arg	Asp	Val	Lys	Asp	Thr	Ile	Leu	His
	355					360						365			
Asp	Asn	Leu	Lys	Gln	Leu	Met	Leu	Gln							
	370					375									

<210> 91
 <211> 746
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(746)
 <223> n = g, a, c or t

<400> 91
 tttgccctga cccggggccat tgccagaaga cgtcttctcg gggcgccagg attcaccttt 60
 ccttcccgac ctcaacttct tcgcggccga ctctgtctc cagctatccg gaggcctctc 120
 ccctagccta cagggttctc tcgacagccc tgggtccctt ttccgatgga caaagagctt 180
 ggattttttc accaagtacc gctctgtgcc caattcggag cctgcnagggt tttaccccc 240
 cctttaaaaa agcccccttt ggttatatac cccttaccct taccccccgt gggttacccc 300
 ttntatacgg aaaccccccc ctggtcggcc ttccccctta tggggccccg gtcttaaacc 360
 ttggggaaac acaanaactt ccggaaaggg acccccattt cgatttacct cgcaaaagcc 420
 ccccnctttt cccaaanggg ataccggcca agttntaaag gaaacccttt taanatttgg 480
 attgaggatt atttattata ggggccctat taaaacaaac aacaacactt ctttttatcc 540
 acaagtggg ngggatntaa atgatttatc aaanccggt tgtggtaaca aaacaatttt 600
 tttacaaaac gncccgagg tatattagtt ataaaaaaa tattcctccc cgaaaaacat 660
 tattctcccc ccccccttat atattttaac accccatata ttcaacngct atttattatt 720
 gccaccatat ttttacccca taaata 746

<210> 92
 <211> 305
 <212> DNA
 <213> Homo sapiens

<400> 92
 tttgccctga cccggggccat tgccagaaga cgtcttctcg gggcgccagg attcaccttt 60
 ccttcccgac ctcaacttct tcgcggccga ctctgtctc cagctatccg gaggcctctc 120
 ccccttagcc tacagggttc tctcgacagc ccgggtcccg ttttttattt ccccggaagg 180
 gggaagggaa ggctggggat tgtgtttcga cgcagtaacg tctgtgccat cgacctgcag 240
 tttccctaac ctgtttcctc ctcccgggtc ttccgacccc cgcgctcctt ggccgtctac 300
 tgaa 305

<210> 93
 <211> 709
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(709)
 <223> n = g, a, c or t

<400> 93
 aaaangtata gactcactat agtggcgaat tgggnccatc tagatgcatg ctcgagcggc 60
 cgccagggtg gatggatata tgcagaattg ctgccgctta cgacagtcag tgagtatcag 120
 acctcagagc tagatcgagc ggccgcttta tctatctaac cactgtgctg ggttcgtgcg 180
 gnccccgcta gagtttaatg tattcctgag atttcactgg acaggagtct accaaacgga 240
 atttttctgt gtgaatttta aaagataaacc gagtgcccaa tatttttagaa cgaagaagaa 300
 agggagtggg ttaaacgcta agttcagtaa tacntgaag ttttttagcaa aagcgacata 360
 agttctatgg cgactgaggg gtgggagagg ctcgacgnnt ttnaccaagt agacgggcca 420
 aggaaggcgc gnggggggtcc ggaaacangg gaccgggggc agggggaggg gaaaaaccag 480
 ggttacagcg ngaaaaacct ggccaaggga ctaccgggaa cgtatgaggg ccaaaacaaa 540
 gaaaggccgg attaacctta tgggggattg gaaaaaaaa atccccaaag ggcttcctat 600
 atccccctcc ggggggaaaaa aacacagggg gggaaacccc cgggaggccc tatggatcca 660
 ggacacgaaa gcgaaaaccc ccctgggtaa gagagcccta agggggggga 709

<210> 94
 <211> 667
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(667)
 <223> n = g, a, c or t

```

<400> 94
ccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt      60
ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga      180
ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggctga tggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggctgt cgagagaacc ctgtaggcta      360
ggggagaggg ctccggatag ctggagacag gagtgcggcg cgaagaagtt gaggtcggga      420
aggaaagggt aatcctggcg ccccgagaag acgtcttctg gcaatggccc gggctccagc      480
ccgacggccc cgcgcagcgc gcaagccggg acttcgaacg cacnontgca gccctcataa      540
gcgaacggca taaaaggccc ggggggtcca gcgcattaag ggcccccccg accatcctcc      600
gggcgaggtg aacaagcggg gttacccaag gccggcggag aggtcccag gccattngac      660
tagggnt
  
```

<210> 95
 <211> 438
 <212> DNA
 <213> Homo sapiens

```

<400> 95
tttgcctga cccgggcccgg ggctgtagac tagagaggga gagaagaaaa cccaaaagca      60
atggcctggg actgccggag gctgggtggcg gcgggggcgc caggctgcgc acgggtttac      120
accaacacgc agctgctgga actggagaag gaattccact ttaataagta cctgtgccgg      180
ccacgccgcg tcgagatcgc ggccttgctg gacctcaccg aaaggcaggt caaagtctgg      240
tttcagaacc ggcgcatgaa gcacaagcgg cagacgcagc accgagagcc gccggatggg      300
gagcctgcct gcccgggagc cctggaggac atctgcgacc ctgccgagga accctgcggc      360
cagcccgggc ggccctcccg cctcgcgggc ggcgtgggaa gcctgctgtc acccgccgga      420
ggtggttgcc gggggccc
  
```

<210> 96
 <211> 474
 <212> DNA
 <213> Homo sapiens

```

<400> 96
ccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt      60
ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga      180
ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgtgg gggtcgaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggctga tggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggctgt cgagagaacc ctgtaggcta      360
ggggagaggg ctccggatag ctggagacag gagtgcggcg cgaagaagtt gaggtcggga      420
aggaaaggta attccttctc cagttccagc agctgcgtgt tgggtgaagc cgtg      474
  
```

<210> 97
 <211> 397
 <212> DNA
 <213> Homo sapiens

```

<400> 97
tttgcctga cccgggcccgg ggctgtagac tagagaggga gagaagaaaa cccaaaagca      60
  
```


atggcctggg	actgccggag	gctggtggcg	gcggggcgcg	caggctgcgc	acggttacac	120
caacacgcag	ctgctggaac	tggagaagga	attccacttt	aataagtacc	tgtgccggcc	180
acgccgcgtc	gagatcgccg	ccttgctgga	cctcaccgaa	aggcaggtca	aagtctggtt	240
tcagaaccgg	cgcataaagc	acaagcggca	gacgcagcac	cgagagccgc	cggatgggga	300
gccttgccct	gcccgggagc	ccttgaggga	catctgcgac	cctgccgagg	aaccgcggg	360
ccagcccggg	cggccccttc	cgctcgcgg	gcgggcg			397

<210> 98
 <211> 447
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(447)
 <223> n = g, a, c or t

ccccctaga	gattctaatt	tacttcctga	gattatcact	ggaaggagat	ctaccaaaccg	60
gaatttcttc	cgtgtgaatt	ttaacagaga	taaccgagtg	cccatatttt	agaagaagaa	120
gaaagggagt	ggattaaacg	ctaattcagt	aatacctgaa	tttttagcaa	gacacataag	180
tctatgacgc	tgaggggtgg	agaggctcga	tttttccagt	agacggccaa	ggagcgcggg	240
ggtcgaaaagg	accggggagga	ggaaacaggt	tagggaaact	gcaggtcgac	tggcacagag	300
cgtactggtg	aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	360
ctggtaggct	aggggagagg	cctccggata	gctggagaca	ggagtcggcc	gcgaangaag	420
ttgaggtcgg	gaaggaaaagg	tgaatcc				447

<210> 99
 <211> 558
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(558)
 <223> n = g, a, c or t

aaattggaaa	tagactcact	atagggcgaa	ttgggccctc	tagaatgaca	tgctcgagcg	60
gccagnccaa	ggtgtgatgg	atatctgcag	aattctgccc	ttacgacagt	cagtgagtat	120
cagacctcag	agctagatcg	tagcggccgc	tttatctatc	taaccactgt	gctgggtntc	180
tgcgccccc	gctagagttt	aattattcct	gagatttcac	tggccaggga	gtctaccaac	240
agggaatttt	tctgtgtgaa	ttttaaaaga	taaccgagtg	cccaatat	tagaagaaga	300
agaaaggag	tggattaaac	gctaattcag	taatacctga	attttagcaa	aacacataag	360
tctatgcgac	tgaggggtgg	agaggctcga	tttttccagt	agacggccaa	ggagcgcggg	420
ggncgaaaagg	accggggagga	ggaaacaggt	tagggaaact	gcaggtcgat	ggcacagagc	480
gtactggtga	aaaaatccag	ctcttcctcg	gaaaaaggga	ccggggtgta	agagagaacc	540
ctggnaaggc	cagcggga					558

<210> 100
 <211> 436
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(436)
 <223> n = g, a, c or t

ccccctaga	gtttaattat	tcttgagatt	tcactggaag	gagtctacca	gacggaattt	60
-----------	------------	------------	------------	------------	------------	----

ttctgtgtga	attttaagaa	gataaccgag	tgcccaatat	tttagaagaa	gaagaaaggg	120
agtggattaa	acgctaattc	agtaatacct	gaatttttagc	aaaacacata	acgtctatgc	180
gactgagggg	gggagaggct	cgattttgtc	cagtacgacg	gccaaggagc	gcgcgggggtc	240
gaaaggaccg	ggaggaggaa	acagggttagg	gaaactgcag	gtcgatggca	cagagcgtac	300
tggtgaaaaa	atccagctct	acctcggaaa	aagggaccgg	gaccngatcg	agagaaccct	360
gtaggctagg	ggagaggcca	tccggataga	ctggagacag	gagtcggaac	gcgaagaagt	420
acgaggtcgn	ggaagg					436

<210> 101
 <211> 642
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(642)
 <223> n = g, a, c or t

<400> 101						
ccccctaga	gtttaattat	tcctgagatt	tcactggaag	gagtctacca	aacggaattt	60
ttctgtgtga	attttaaaaag	ataaccgagt	gccaatatt	ttagaagaag	aagaaagggg	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacataa	gtctatgcga	180
ctgaggggtgg	gaggggctcg	atttttccag	tagacggcca	aggagcgcgg	gggtcgaaaag	240
gaccgggagg	aggaaacagg	tnagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccggatag	ctggagacag	gagtcggccg	cgaagaagtn	gaggtcggga	420
aggaaagcgt	gaaagtccct	ggcacagcca	ccgaaggcaa	agaacggatc	ntttcatnng	480
acaaaaatgg	gacccaggag	catcccaagc	accgggancc	gggcgccccg	gacgcangca	540
gnagcgcaaa	gacagggnga	actcacgaaa	ggcagnacnt	gacgaccca	ttccaaaaag	600
gagagaacaa	ngggnataaa	aagggaccag	gagaaganca	ag		642

<210> 102
 <211> 417
 <212> DNA
 <213> Homo sapiens

<400> 102						
ccccctaga	gtttaattat	tcctgagatt	tcactggaag	gagtctacca	aacggaattt	60
ttctgtgtga	attttaaaaag	ataaccgagt	gccaatatt	ttagaagaag	aagaaagggg	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacataa	gtctatgcga	180
ctgaggggtgg	gagaggctcg	atttttccag	tagacggcca	aggagcgcgg	gggtcgaaaag	240
gaccgggagg	aggaaacagg	ttagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccggatag	ctggagacag	gagtcggccg	cgaagaagtt	cgaggtc	417

<210> 103
 <211> 452
 <212> DNA
 <213> Homo sapiens

<400> 103						
ccccctaga	gtttaattat	tcctgagatt	tcactggaag	gagtctacca	aacggaattt	60
ttctgtgtga	attttaaaaag	ataaccgagt	gccaatatt	ttagaagagg	aagaaagggg	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacgtaa	gtctatgcga	180
ctgaggggtgg	gagaggctcg	atttttccag	tagacggcca	aggagcgcgg	gggtcgaaaag	240
gaccgggagg	aggaaacagg	ttagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccggatag	ctggagacag	gagtcggccg	cgaagaagtt	gaggtcggga	420
aggaaaggtg	aatcctggcg	ccccgagaag	ac			452

<210> 104
 <211> 462
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(462)
 <223> n = g, a, c or t

```

<400> 104
ccccctaga gtttaattat tcttgagatt tcaactggaag gaggctacca aacggaattt      60
ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga      180
ctgagggtgg gagaggctcg atttntccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg tagggaaact gcaggtcgat ggcacagagc gtactgggtga      300
aaaaatccag ctcttcctcg gaaaaaggga ccgggactgt cgagagaacc ctgnaggcta      360
ggggagaggc ctccggatag ctggagacag gagtcggacc gcgaagcaag tctgaggctg      420
ggaaggaaaag gtgaatcctg gcgccccgag aagacgtctt ct                        462

```

<210> 105
 <211> 404
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(404)
 <223> n = g, a, c or t

```

<400> 105
ccccctaga gtttaattat tcttgagatt tcaactggaag gaggctacca aacggaattt      60
ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga      180
ctgagggtgg gagaggctcg atttntccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggtcga nggcacagag cgtactgggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggcatg tcgagagAAC cctgganggc      360
taggggagag gcctaccgga tagcnggaga caaggagncg gacg                        404

```

<210> 106
 <211> 526
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(526)
 <223> n = g, a, c or t

```

<400> 106
tttgccctga cccgggccgg ggctgtagac tagagaggga gagaagaaaa cccattgccca      60
gaagacgtct tctcggggcg ccaggattca cctttccttc ccgacctcaa cttcttcgcg      120
gccgactcct gtctccagct atccggaggc ctctccccta gcctacaggg ttctctcgac      180
agcccggtcc ctttttccga ggaagagctg gatttttttca ccagtacgct ctgtgccatc      240
gacctgcagt ttccctaacc tgtttcctcc tcccggctcct ttcgaccccc gcgctccttg      300
gccgtctact ggaaaaatcg agcctctccc accctcagtc gcatagactt atgtgttttg      360
ctaaaattca ggtattactg aattagcgtt taatccactc cttttcttct tcttctaaaa      420
tattgggcac tcggttatct tttanaaatt tcacacagaa aattccgttt ggtagactcc      480
ttccagtgaa atctcaggaa ttattaactc tagggggggc gcaaga                        526

```

<210> 107
 <211> 563
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(563)
 <223> n = g, a, c or t

```

<400> 107
ccccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt      60
ttctgtgtga attttaaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaataacctg aatttttagca aaacacataa gtctatgcga      180
ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggtcga tggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggctgt cgagagaacc ctgtaggcta      360
ggggagaggg ctccggatag ctggagacag gagtcggccg cgaagaagtt gaggtcggga      420
aggaaagggtg aatcctggcg ccccgagaag acgtcttctg gcaatgggtt ttcttctctc      480
cctctctagt ctacagcccc ggcccgggtc agggcaaacc ggagaacca gcacactgga      540
gccaccngt gccaccggct tgg                                     563

```

<210> 108
 <211> 475
 <212> DNA
 <213> Homo sapiens

```

<400> 108
tttgcctga cccgggcccgg ggctgtagac tagagaggga gagaagaaaa cccattgccca      60
gaagacgtct tctcggggcg ccaggattca cctttccttc ccgacctcaa cttcttcgag      120
gccgactcct gtctccagct atccggaggc ctctccccta gcctacaggg ttctctcgac      180
agcccgggtcc ctttttccga ggaagagctg gattttttca ccagtacgct ctgtgccatc      240
gaccgtgcag ttccctaac ctgtttcttc ctcccgggtc ttccgacccc cgcgctcctt      300
ggcgtctac tggaaaaatc gagcctctcc caccctcagt cgcatagact tatgtgtttt      360
gctaaaattc aggtattact gaattagcgt ttaatccact ccctttcttc ttcttctaaa      420
atattgggca catcggttat ctttttaaaa ttcacacaga aaaattccgt taggg          475

```

<210> 109
 <211> 545
 <212> DNA
 <213> Homo sapiens

```

<400> 109
ccccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt      60
ttctgtgtga attttaaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaataacctg aatttttagca aaacacataa gtctatgcga      180
ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggtcga tggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggctgt cgagagaacc ctgtaggcta      360
ggggagaggg ctccggatag ctggagacag gagtcggccg cgaagaagtt gaggtcggga      420
aggaaagggtg aatcctggcg ccccgagaag acgtcttctg gcaatgggtt ttcttctctc      480
cctctctagt ctacagcccc tggccggggg cagggcaaacc cggagaaacc agcactggtg      540
agcca                                     545

```

<210> 110
 <211> 485
 <212> DNA
 <213> Homo sapiens

```

<400> 110
ccccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt      60

```

ttctgtgtga	attttaaaag	ataaccgagt	gccaatatt	ttagaagaag	aagaaagga	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacataa	gtctatgcga	180
ctgaggggtg	gagaggctcg	atttttccag	tagacggcca	aggagcgcg	gggtcgaaag	240
gaccgggagg	aggaaacagg	ttagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttctc	ggaaaaagg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccgatatg	ctggagacag	gagtcggccg	cgaagaagtt	gaggtcgga	420
aggaaaggtg	aatcctgggc	gccccgagaa	gacgtcttct	aggcaatggc	ccgggtcagg	480
gcaaa						485

<210> 111
 <211> 467
 <212> DNA
 <213> Homo sapiens

tttgccctga	cccgggccc	ggctgtagac	tagagagga	gagaaggaaa	cccaaaagca	60
atggcctggg	actgccggag	gctgggtggc	gcggggcgcg	caggctgcgc	acggtttaca	120
ccaacacgca	gctgctggaa	ctggagaagg	aattccactt	taataagtac	ctgtgccggc	180
cacgccgcgt	cgagatcgcg	gccttgctgg	acctcaccga	aaggcaggtc	aaagtctggt	240
ttcagaaccg	gcgcatgaag	cacaagcggc	agacgcagca	ccgagagccg	ccggatgggg	300
agcctgcctg	cccgggagcc	ctggaggaca	tctgcgaccc	tgccgaggaa	cccgcggcca	360
gccggggcgt	ccccttcgc	ctcgcgggcg	gcgtgggaag	cctgctgtca	cccgccggag	420
gtggtgccgg	gggccttaag	cgcggaaccc	ggcctttagc	cgttcgc		467

<210> 112
 <211> 390
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(390)
 <223> n = g, a, c or t

tttgccctga	cccgggccc	ggctgtagac	tagagagga	gagaagaaaa	cccaaaagca	60
atggcctggg	actgccggag	gctgggtggc	gcggggcgcg	caggctgcgc	acggcttaca	120
ccaacacgca	gctgctggaa	ctggagaagg	aattccactt	taataagtac	ctgtgccggc	180
cacgccgcgt	cgagatcgcg	gccttgctgg	acctcaccga	aaggcaggtc	aaagtctggt	240
ttcagaaccg	gcgcatgaag	cacaagcggc	agacgcagca	ccgagagccg	ccggatgggg	300
agccatgcct	gccggggagc	ccttgaggga	catctgcgac	ccttgccgag	gaaccgcgg	360
gccagcccg	nngcggcccc	atccgcctcg				390

<210> 113
 <211> 723
 <212> DNA
 <213> Homo sapiens

tttgccctga	cccgggccc	gctgtagact	agagaggag	agaagaaaac	ccaaaagcaa	60
tggcctggga	ctgccggagg	ctgggtggcg	cggggcgcgc	aggctgcga	cggcttacac	120
caacacgcaa	ttctggaact	ggagaaggaa	ttccacttta	ataagtacct	gtgccggcca	180
cgccgcgctg	agatcgcggc	cttgctggac	ctcaccgaaa	ggcagggtcaa	agtctggttt	240
cagaaccggc	gcatgaagca	caagcggcag	acgcagcacc	gagagccgcc	ggatggggag	300
cctgcctgcc	cgggagccct	ggaggacatc	tgcgaccctg	ccgaggaacc	cgcgccagc	360
ccgggcggcc	cctccgcctc	gcgggcggcg	tgggaagcct	gctgtcacc	gccggagggtg	420
gtgccggggg	ccttaagcgc	ggacccccgg	ccttttagccg	ttcgcttaga	gggcgcaggc	480
gcgtcgagtc	ccggctgcgc	gctgcgcggg	gccggcgggc	tggagcccg	gccattgcc	540
gaagacgtct	tctcggggcg	ccaggattca	cctttccttc	ccgacctcaa	cttcttcg	600
gccgactcct	gtctccagct	atccgaggcc	tctcccctag	cctacagggg	ttctctcgac	660

agccccgtcc ctttttccga ggaagagctg gattttttca ccagtacgt ctgtgccatc 720
gac 723

<210> 114
<211> 552
<212> DNA
<213> Homo sapiens

<400> 114
tttgccctga cccggggccgg ggctgtagac tagagagggg gagaagaaaa cccaaaagca 60
atggcctggg actgccggag gctggtggcg gcggggcgcg caggctgcgc acggcttaca 120
ccaacacgca gctctggaac tggagaaggga attccacttt aataagtacc tgtgccggcc 180
acgccgcgtc gagatcgcg ccttgctgga cctcaccgaa aggcaggtca aagtctggtt 240
tcagaaccgg cgcatgaagc acaagcggca gacgcagcac cgagagccgc cggatggggg 300
gctgctgc ccgggagccc tggaggacat ctgcgaccct gccgaggaac ccgcggccag 360
cccgggcggc ccctccgcct cgcgggcggc gtgggaagcc tgctgtcacc cgccggagggt 420
ggtgccgggg gccttaagcg cggacccccg gcctttagcc gttcgcttag agggcgagg 480
cgcgctcgagt cccggctgcg cgctgcgcgg ggccggcggg ctggagcccg ggccattgcc 540
agaagacgtc tt 552

<210> 115
<211> 375
<212> DNA
<213> Homo sapiens

<400> 115
tttgccctga cccggggccgg ggctgtagac tagagagggg gagaagaaaa cccaaaagca 60
atggcctggg actgccggag gctggtggcg gcggggcgcg caggctgcgc acggcttaca 120
ccaacacgca gctgctgga ctggagaagg aattccactt taataagtac ctgtgccggc 180
cacgccgcgt cgagatcgcg gccttgctgg acctcaccga aaggcaggtc aaagtctggt 240
ttcagaaccg gcgcatgaag cacaagcggc agacgcagca ccgagagccg ccggatgggg 300
agcctgcctg cccgggagcc ctggaggaca tctgcgacct cttgccgagg aaccgcggc 360
cagcccgggc ggccc 375

<210> 116
<211> 562
<212> DNA
<213> Homo sapiens

<400> 116
tttgccctga cccggggccgg ggctgtagac tagagagggg gagaagaaaa cccaaaagca 60
atggcctggg actgccggag gctggtggcg gcggggcgcg caggctgcgc acggcttaca 120
ccaacacgca gctgctgga ctggagaagg aattccactt taataagtac ctgtgccggc 180
cacgccgcgt cgagatcgcg gccttgctgg acctcaccga aaggcaggtc aaagtctggt 240
ttcagaaccg gcgcatgaag cacaagcggc agacgcagca ccgagagccg ccggatgggg 300
agcctgcctg cccgggagcc ctggaggaca tctgcgacct tgccgaggaa ccgcgggcca 360
gccccggcg cccctccgcc tcgcgggcgg cgtgggaagc ctgctgtcac ccgcggagg 420
tggtgccggg ggcccttaagc gcggaccccc gcccttttagc cgttcgctta gagggcgag 480
gcgcgtcgag tcccggctgc gcgctgcgcg gggccggcg gctggagccc gggccattgc 540
cagaagacgt cttctcgggg cg 562

<210> 117
<211> 666
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(666)
<223> n = g, a, c or t

```

<400> 117
tttgccctga cccggggccgg ggctgtagac tagagagggga gagaagaaaa cccagaagca      60
atggcctggg actgccggag gccttggttg gcggcggggc gcgcaggctt gcggccaacg      120
gttttacacc aaacacgcag ctgcttgga ctggagaaag gaaattaacc ctttttcctt      180
tcccgaaact tcaaactttc tttcggcggg ccggacttcc ttgtctccag cttatccgga      240
gagcgccttc tccccattag ccctaacaag gggttctctc nggacaggcc cgcgggggtcc      300
ccttttttcc ggagaaagag cttgaatttt tccaaccaag gtacggccca ttcgtttggt      360
tgcccccaat ttcgtagaac cctttgcaca aggttttttc cccctataaa aacctgtggt      420
tttttccctt tccacctttc cccgcggggg tatccctttt ttcaggaagc cgcgccnaca      480
aaagggcctt cctatttttg gcccggtgta ctcttttagc tgtgggaaaa cagaattcgt      540
cgggaaaggc ctttcttcca caaaccccc attcnagagg tccggggcaa gatttagaaa      600
ctttattgga ctatgatttg tgttgagggc ccttaaacac aaaattttca agggggatta      660
ttttta

```

```

<210> 118
<211> 743
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(743)
<223> n = g, a, c or t

```

```

<400> 118
tttgccctga cccggggccgg ggctgtagac tagagagggga gagaagaaaa cccaaaagca      60
atggcctggg cactgcctgg cgctttggga agcgtgctgt caccggtccg gaggggtgat      120
gccgtggggg cctatgaagc tgcggacccc cggtctttag accgtacgct tagagcggcg      180
gacaggcncg tcgaggtccc ggctgcgaac agcgcggagc ccgggcngca tgaagcctcg      240
tgtcncaatt tnccaagaat ggaagggttc ttacccttcn gaggcgcggc ccaaggngta      300
cttcttacct cctgtgtttc ccttttcccc gaaacctctc cgaagtcttt cctttacggg      360
cgngggccaga nactccgttg ttctacct anggattaca ncctgagaag accttttcnc      420
acgcctcntt gaggcctcac tgtaaacnng tgggaggggt ngtctccgtt cttncgggga      480
cctaagcggc cccgctgggc gaaccgcggg tttttttaac cctcaccggg agaaagnaga      540
caaaangaca aagggtcttt tgaggaagat tccatctttn cacnaccggt atagattagt      600
taacgggtct cccttgtgct tcgcccacat atttaagtac cggctgtggg cgaagcggtc      660
ttggcccncc aattacacag tccnctttgt gatataacct nctttccact cttaccngn      720
cgggggactc ccactttttt ttc

```

```

<210> 119
<211> 544
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(544)
<223> n = g, a, c or t

```

```

<400> 119
tttgccctga cccggggccgg ggctgtagac tagagagggga gagaagaaaa cccaaaagca      60
atggcctggg actgccggag gctggtggcg gcggggcgcg caggctgcgc nacggttaca      120
ctcaactacg cagctgctgg aacttgaga aggaatttcc actttaataa gtaccttggt      180
tccggggcac agccggcggt cagagatcng cgggcctttg cctggaccct tcagcccga      240
aagggaagg tcnaagaggc tcataggggt tccagagacn cgngggcggc caattgaaga      300
ggcaacgaga ggccggccaa ggaacggcag caaccggaa gaaggcccg cgcnggcat      360
tgggggggaa gccttngccc ttggccccgg tgggtgaagg ccgctttggg aangggagca      420
tattcctngc ggaaacgcct tgtcncagaa gggtagaaac cccgtgacgg ggccaagggc      480
gccccggggc cggcgggccc ccctttccgg acccatttcc gggccggggg gccggngca      540
gttg

```

<210> 120
 <211> 1520
 <212> DNA
 <213> Homo sapiens

<400> 120

gaattccggg	gggggggtccc	ttccgatacct	ccctcctgac	gcccccccca	gcagccccct	60
ccccccaccat	tgaaagccat	gaatttttgaa	tttgagaggg	agattgggtt	tataaacagc	120
cagccgtcgc	tcgccgagtg	tctgacttcc	ttccccgctg	tcttgagac	atttcaaact	180
tcataaatca	aggagtcgac	attaattcct	cctcctcctc	ctttcgagca	aaccttcccc	240
agcctccagc	ccggcgccctc	cacccttcag	agaccagga	gccaaaagcg	agccgaagat	300
gggcctgctc	tgccgcccgc	accgcccgcg	ccactccccg	ctgccccccc	ggcccccgag	360
ttcccttgga	tgaaagagaa	gaaatccgcc	aagaaaccca	gccaatccgc	cacgtctcct	420
tctccggccg	cctccgccgt	tccggcctcc	ggggtcggat	cgcctgcaga	tggcctggga	480
ctgccggagg	ctggtggcgg	cggggcgcg	aggctgcgca	cggcttacac	caacacgcag	540
ctgctggaac	tggagaagga	attccacttt	aataagtacc	tgtgccggcc	acgccgcgtc	600
gagatcgagg	ccttgctgga	cctcaccgaa	aggcaggtca	aagtctggtt	tcagaaccgg	660
cgcataaagc	acaagcggca	gacgcagcac	cgagagccgc	cggatgggga	gcctgcctgc	720
ccgggagccc	tggaggacat	ctgcgaccct	gccgaggaa	ccgcggccag	cccggggcgg	780
ccctccgcct	cgcgggcggc	gtgggaagcc	tgtgtcacc	cgcggagggt	ggtgccgggg	840
gccttaagcg	cggacccccg	gcctttagcc	gttcgcttag	agggcgaggg	cgcgtcgagt	900
cccggctgcg	cgtgcgcggg	ggccggcggg	ctggagcccg	ggccattgcc	agaagacgtc	960
ttctcggggc	gccaggattc	acctttcctt	cccgaacctc	acttcttcgc	ggccgactcc	1020
tgtctccagc	tatccggagg	cctctcccct	agcctacagg	gttctctcga	cagcccgggtc	1080
cctttttccg	aggaagagct	ggattttttc	accagtacgc	tctgtgccat	cgacctgcag	1140
tttccctaac	ctgtttcctc	ctccccggtc	tttcgacccc	cgcgtcctct	ggccgtctac	1200
tggaaaaatc	gagcctctcc	caccctcagt	cgcatagact	tatgtgtttt	gctaaaattc	1260
aggtattact	gaattagcgt	ttaatccact	tcctttcttc	ttcttctaaa	atattgggca	1320
ctcggttatc	ttttaaaatt	cacacagaaa	aattccgttt	ggtagactcc	ttccaatgaa	1380
atctcaggaa	taattaaact	ctagggggac	tttcttaaaa	ataactagag	ggacctattt	1440
tcctcttttt	tatgttttag	actgtagatt	atttattaaa	attctttaat	aataggaaaa	1500
ggggaaagta	tttattgtac					1520

<210> 121
 <211> 356
 <212> PRT
 <213> Homo sapiens

<400> 121

Met	Asn	Phe	Glu	Phe	Glu	Arg	Glu	Ile	Gly	Phe	Ile	Asn	Ser	Gln	Pro
1				5					10					15	
Ser	Leu	Ala	Glu	Cys	Leu	Thr	Ser	Phe	Pro	Ala	Val	Leu	Glu	Thr	Phe
			20					25					30		
Gln	Thr	Ser	Ser	Ile	Lys	Glu	Ser	Thr	Leu	Ile	Pro	Pro	Pro	Pro	Pro
		35					40					45			
Phe	Glu	Gln	Thr	Phe	Pro	Ser	Leu	Gln	Pro	Gly	Ala	Ser	Thr	Leu	Gln
	50					55					60				
Arg	Pro	Arg	Ser	Gln	Lys	Arg	Ala	Glu	Asp	Gly	Pro	Ala	Leu	Pro	Pro
65					70					75				80	
Pro	Pro	Pro	Pro	Pro	Leu	Pro	Ala	Ala	Pro	Pro	Ala	Pro	Glu	Phe	Pro
					85					90				95	
Trp	Met	Lys	Glu	Lys	Lys	Ser	Ala	Lys	Lys	Pro	Ser	Gln	Ser	Ala	Thr
			100					105					110		
Ser	Pro	Ser	Pro	Ala	Ala	Ser	Ala	Val	Pro	Ala	Ser	Gly	Val	Gly	Ser
		115					120					125			
Pro	Ala	Asp	Gly	Leu	Gly	Leu	Pro	Glu	Ala	Gly	Gly	Gly	Gly	Ala	Arg
		130				135					140				
Arg	Leu	Arg	Thr	Ala	Tyr	Thr	Asn	Thr	Gln	Leu	Leu	Glu	Leu	Glu	Lys
145					150					155				160	
Glu	Phe	His	Phe	Asn	Lys	Tyr	Leu	Cys	Arg	Pro	Arg	Arg	Val	Glu	Ile
				165					170					175	

Ala	Ala	Leu	Leu	Asp	Leu	Thr	Glu	Arg	Gln	Val	Lys	Val	Trp	Phe	Gln	
			180					185					190			
Asn	Arg	Arg	Met	Lys	His	Lys	Arg	Gln	Thr	Gln	His	Arg	Glu	Pro	Pro	
			195				200					205				
Asp	Gly	Glu	Pro	Ala	Cys	Pro	Gly	Ala	Leu	Glu	Asp	Ile	Cys	Asp	Pro	
			210			215					220					
Ala	Glu	Glu	Pro	Ala	Ala	Ser	Pro	Gly	Gly	Pro	Ser	Ala	Ser	Arg	Ala	
225					230					235					240	
Ala	Trp	Glu	Ala	Cys	Cys	His	Pro	Pro	Glu	Val	Val	Pro	Gly	Ala	Leu	
				245					250					255		
Ser	Ala	Asp	Pro	Arg	Pro	Leu	Ala	Val	Arg	Leu	Glu	Gly	Ala	Gly	Ala	
			260				265					270				
Ser	Ser	Pro	Gly	Cys	Ala	Leu	Arg	Gly	Ala	Gly	Gly	Leu	Glu	Pro	Gly	
		275				280					285					
Pro	Leu	Pro	Glu	Asp	Val	Phe	Ser	Gly	Arg	Gln	Asp	Ser	Pro	Phe	Leu	
		290			295					300						
Pro	Asp	Leu	Asn	Phe	Phe	Ala	Ala	Asp	Ser	Cys	Leu	Gln	Leu	Ser	Gly	
305					310					315					320	
Gly	Leu	Ser	Pro	Ser	Leu	Gln	Gly	Ser	Leu	Asp	Ser	Pro	Val	Pro	Phe	
				325				330						335		
Ser	Glu	Glu	Glu	Leu	Asp	Phe	Phe	Thr	Ser	Thr	Leu	Cys	Ala	Ile	Asp	
			340				345					350				
Leu	Gln	Phe	Pro													
			355													

<210> 122
 <211> 174
 <212> DNA
 <213> Homo sapiens

<400> 122	
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 <212> DNA
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<212> DNA
<213> Homo sapiens

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<400> 129

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Tyr	Val	Ala	Phe	Thr	Pro	Glu	Gly	Glu	Arg	Leu	Ile	Gly	Asp	Ala	Ala
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Lys	Asn	Gln	Leu	Thr	Ser	Asn	Pro	Glu	Asn	Thr	Val	Phe	Asp	Ala	Lys
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Arg	Leu	Ile	Gly	Arg	Thr	Trp	Asn	Asp	Pro	Ser	Val	Gln	Gln	Asp	Ile
			100					105						110	
Lys	Phe	Leu	Pro	Phe	Lys	Val	Val	Glu	Lys	Lys	Thr	Lys	Pro	Tyr	Ile
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Ile	Ser	Ala	Met	Val	Leu	Thr	Lys	Met	Lys	Glu	Thr	Ala	Glu	Ala	Tyr
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Leu	Gly	Lys	Lys	Val	Thr	His	Ala	Val	Val	Thr	Val	Pro	Ala	Tyr	Phe
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Asn	Asp	Ala	Gln	Arg	Gln	Ala	Thr	Lys	Asp	Ala	Gly	Thr	Ile	Ala	Gly
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Leu	Asn	Val	Met	Arg	Ile	Ile	Asn	Glu	Pro	Thr	Ala	Ala	Ala	Ile	Ala
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Tyr	Gly	Leu	Asp	Lys	Arg	Glu	Gly	Glu	Lys	Asn	Ile	Leu	Val	Phe	Asp
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Val	Phe	Glu	Val	Val	Ala	Thr	Asn	Gly	Asp	Thr	His	Leu	Gly	Gly	Glu
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		260					265						270		
Lys	Thr	Gly	Lys	Asp	Val	Arg	Lys	Asp	Asn	Arg	Ala	Val	Gln	Lys	Leu
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Arg	Arg	Glu	Val	Glu	Lys	Ala	Lys	Arg	Ala	Leu	Ser	Ser	Gln	His	Gln
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Thr	Leu	Thr	Arg	Ala	Lys	Phe	Glu	Glu	Leu	Asn	Met	Asp	Leu	Phe	Arg
			325					330						335	
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Lys	Ser	Asp	Ile	Asp	Glu	Ile	Val	Leu	Val	Gly	Gly	Ser	Thr	Arg	Ile
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Ser	Arg	Gly	Ile	Asn	Pro	Asp	Glu	Ala	Val	Ala	Tyr	Gly	Ala	Ala	Val
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 435 440 445
 Gln Ile Phe Ser Thr Ala Ser Asp Asn Gln Pro Thr Val Thr Ile Lys
 450 455 460
 Val Tyr Glu Gly Glu Arg Pro Leu Thr Lys Asp Asn His Leu Leu Gly
 465 470 475 480
 Thr Phe Asp Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln
 485 490 495
 Ile Glu Val Thr Phe Glu Ile Asp Val Asn Gly Ile Leu Arg Val Thr
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 Ala Glu Asp Lys Gly Thr Gly Asn Lys Asn Lys Ile Thr Ile Thr Asn
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 Gly Asp Lys Glu Lys Leu Gly Gly Lys Leu Ser Ser Glu Asp Lys Glu
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 Thr Met Glu Lys Ala Val Glu Glu Lys Ile Glu Trp Leu Glu Ser His
 595 600 605
 Gln Asp Ala Asp Ile Glu Asp Phe Lys Ala Lys Lys Lys Glu Leu Glu
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 <213> Homo sapiens

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 <211> 376
 <212> DNA
 <213> Homo sapiens

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 ttcttttacct ctacggtaaa aacagggacc tgtggcatga tctggtactc ccaatatacg 180

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 cccagatccg cgggtgcccatt ctccagccctg ctccacaccct gcatgacaag gggtaggaga 300
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 cagcccagcg ctgccc 376

<210> 137
 <211> 376
 <212> DNA
 <213> Homo sapiens

<400> 137
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 ttctttacct ctacggtaaa aacagggacc tgtggcatga tctgggtactc ccaatatacg 180
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 cccagatccg cgggtgcccatt ctccagccctg ctccacaccct gcatgacaag gggtaggaga 300
 aagaggagag ccatgctgct accgacgggc gctgggtcca accccgagcg cctgcgggac 360
 cagcccagcg ctgccc 376

<210> 138
 <211> 376
 <212> DNA
 <213> Homo sapiens

<400> 138
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 ccgtagaggt aaagaactat ggtgttaaga attcagaatg gattgatgcc tgcatacata 300
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<210> 139
 <211> 2059
 <212> DNA
 <213> Homo sapiens

<400> 139
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 gtccctcagt cctacaccaa ctaatgttac aattgaatcc tataacatga accctatcgt 180
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cttgatctct	gtggtgaaga	gtgctacttt	agagacaaaa	cctgaatcaa	aatatgtatc	960
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gtgagcaggt	gatgcccag	ggacctttgt	agccacttca	ctttttttct	tttctctgcc	1860
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gaaattctcg	aagcttttca	aaattggact	taaaatctaa	ttcaaactaa	tagaattaat	1980
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<210> 140
 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 140

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Ala	Glu	Met	Gly	Thr	Ala	Asp	Leu	Gly	Pro	Ser	Ser	Val	Pro	Thr	Pro
			20					25					30		
Thr	Asn	Val	Thr	Ile	Glu	Ser	Tyr	Asn	Met	Asn	Pro	Ile	Val	Tyr	Trp
		35					40					45			
Glu	Tyr	Gln	Ile	Met	Pro	Gln	Val	Pro	Val	Phe	Thr	Val	Glu	Val	Lys
	50					55					60				
Asn	Tyr	Gly	Val	Lys	Asn	Ser	Glu	Trp	Ile	Asp	Ala	Cys	Ile	Asn	Ile
65					70				75					80	
Ser	His	His	Tyr	Cys	Asn	Ile	Ser	Asp	His	Val	Gly	Asp	Pro	Ser	Asn
				85				90						95	
Ser	Leu	Trp	Val	Arg	Val	Lys	Ala	Arg	Val	Gly	Gln	Lys	Glu	Ser	Ala
			100				105						110		
Tyr	Ala	Lys	Ser	Glu	Glu	Phe	Ala	Val	Cys	Arg	Asp	Gly	Lys	Ile	Gly
	115						120					125			
Pro	Pro	Lys	Leu	Asp	Ile	Arg	Lys	Glu	Glu	Lys	Gln	Ile	Met	Ile	Asp
	130					135					140				
Ile	Phe	His	Pro	Ser	Val	Phe	Val	Asn	Gly	Asp	Glu	Gln	Glu	Val	Asp
145					150				155					160	
Tyr	Asp	Pro	Glu	Thr	Thr	Cys	Tyr	Ile	Arg	Val	Tyr	Asn	Val	Tyr	Val
				165				170						175	
Arg	Met	Asn	Gly	Ser	Glu	Ile	Gln	Tyr	Lys	Ile	Leu	Thr	Gln	Lys	Glu
			180				185						190		
Asp	Asp	Cys	Asp	Glu	Ile	Gln	Cys	Gln	Leu	Ala	Ile	Pro	Val	Ser	Ser
	195						200					205			
Leu	Asn	Ser	Gln	Tyr	Cys	Val	Ser	Ala	Glu	Gly	Val	Leu	His	Val	Trp
	210					215					220				
Gly	Val	Thr	Thr	Glu	Lys	Ser	Lys	Glu	Val	Cys	Ile	Thr	Ile	Phe	Asn
225					230				235					240	
Ser	Ser	Ile	Lys	Gly	Ser	Leu	Trp	Ile	Pro	Val	Val	Ala	Ala	Leu	Leu
				245				250						255	

Leu Phe Leu Val Leu Ser Leu Val Phe Ile Cys Phe Tyr Ile Lys Lys
 260 265 270
 Ile Asn Pro Leu Lys Glu Lys Ser Ile Ile Leu Pro Lys Ser Leu Ile
 275 280 285
 Ser Val Val Arg Ser Ala Thr Leu Glu Thr Lys Pro Glu Ser Lys Tyr
 290 295 300
 Val Ser Leu Ile Thr Ser Tyr Gln Pro Phe Ser Leu Glu Lys Glu Val
 305 310 315 320
 Val Cys Glu Glu Pro Leu Ser Pro Ala Thr Val Pro Gly Met His Thr
 325 330 335
 Glu Asp Asn Pro Gly Lys Val Glu His Thr Glu Glu Leu Ser Ser Ile
 340 345 350
 Thr Glu Val Val Thr Thr Glu Glu Asn Ile Pro Asp Val Val Pro Gly
 355 360 365
 Ser His Leu Thr Pro Ile Glu Arg Glu Ser Ser Ser Pro Leu Ser Ser
 370 375 380
 Asn Gln Ser Glu Pro Gly Ser Ile Ala Leu Asn Ser Tyr His Ser Arg
 385 390 395 400
 Asn Cys Ser Glu Ser Asp His Ser Arg Asn Gly Phe Asp Thr Asp Ser
 405 410 415
 Ser Cys Leu Glu Ser His Ser Ser Leu Ser Asp Ser Glu Phe Pro Pro
 420 425 430
 Asn Asn Lys Gly Glu Ile Lys Thr Glu Gly Gln Glu Leu Ile Thr Val
 435 440 445
 Ile Lys Ala Pro Thr Ser Phe Gly Tyr Asp Lys Pro His Val Leu Val
 450 455 460
 Asp Leu Leu Val Asp Asp Ser Gly Lys Glu Ser Leu Ile Gly Tyr Arg
 465 470 475 480
 Pro Thr Glu Asp Ser Lys Glu Phe Ser
 485

<210> 141
 <211> 630
 <212> DNA
 <213> Homo sapiens

<400> 141
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 cctgaaccac ttgagaatct ttactgaca gtaaattaca gaacggtggt attacattct 120
 gctgtacaag gtactcaacc tgatcttttc tgccacttat tgtaaagttg ctgattgccc 180
 aagcagcttc ttttgtgtt ccaaagtcct ccttagcaag ctgatgaatt atcataggaa 240
 ttaatccagc atctattaca gcttgaactt gttgctgggt gcctgctggt atgttggaaa 300
 ggaaccacac tgcttcctta tttatcttct cttttgggtg tgataagaga tttgggaagt 360
 gtgacaggac atcacaattg agaacaacct gggtctgctc gtcggtgcca gtcactatgt 420
 tgccaactgc tctgagggtc gctgtttgaa ctttgacttc ctgatggctc agaaggggca 480
 caagaaaggg cacaactcct gaattccaat aaccatctgg tatctgttca ttaccttcca 540
 tctgtcaaag ttatgacaga gcccaaaaca agtgtcttac aagaaatggt tatactctgga 600
 atgggtaata tgaaggacaa cataaaaggc 630

<210> 142
 <211> 660
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(660)
 <223> n = g, a, c or t

<400> 142
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cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggt	attacattct	120
gctgtacaag	gtactcaacc	tgatcttttc	tgccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtgtt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240
ttaatccagc	atctattaca	gcttgaactt	gttgctggtt	gcctgctggt	atggtggaaa	300
ggaaccacac	atgcttcctt	atztatcttc	tctttagggt	gtgataagag	atgtgggaag	360
tgtgacagga	catcacaatt	tgaggaacaa	cctgggtctg	actcgtcggg	gccagtcact	420
atgttgccaa	ctgcatctga	gggcctgctg	tttgaaactt	tgacttcctt	gatggctcag	480
aaggggcaca	agaaagggcn	acaaactcct	ggaatcncaa	taaacaatct	gtatctgttc	540
aataaccctc	ccatcctggt	gcaaagggtan	ctgaacacgg	gaggccccaa	aacagggtgg	600
cctacaagga	aatggtgaac	aaacatggaa	atgggaatag	ganggaccac	cacataaagg	660

<210> 143

<211> 686

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(686)

<223> n = g, a, c or t

<400> 143

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cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggt	attacattct	120
gctgtacgag	gtactcaacc	tgatcttttc	tgccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtgtt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240
ttaatccagc	atctattaca	gcttgaactt	gttgctggtt	gcctgctggt	atggtggaaa	300
ggaaccacac	tgcttcctta	tttatcttct	cttttgggtg	tgataacgag	atgtgggaag	360
tgtgacagga	catcacaatt	gagaacaacc	tgggtctgct	cgtcggtgcc	agtcactatg	420
ttgccaaactg	ctctgagggc	tgctgttttg	aactttgact	tcctgatggc	tcagcaaggg	480
gcacaagaaa	agggcacaaa	cttccttgaa	aatccaataa	accaatctgt	aattctggtt	540
cacatttacc	ttccaattct	tggttcaaag	gtatgacaga	agccccaaaa	cagggtgttct	600
accaagaaat	tgttcacata	atcctgaatg	ggaatantga	cnggacacac	attaaagccg	660
caaaaaccan	acanacaaaa	ccagac				686

<210> 144

<211> 487

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(487)

<223> n = g, a, c or t

<400> 144

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tgtcatactt	gacagatgga	ggtaatgaac	agatacagat	ggttattgat	tcagagattg	120
tgccctttct	tgatgcccct	tctttgggga	aaanccccaa	actcccacgg	ggagaagcgt	180
ccnaacaaaag	ngtttcccca	caaaacaagc	accacaacgc	ggccgaagga	caccgcagtt	240
ccaacnggaa	aaagaggaga	gcccacaaca	cacgggagca	taatatntga	ggggggggcc	300
aagaaaacac	ccgcaactta	aaangcgcnt	gggggaagagc	cattaggttg	gnncaaccgc	360
cccgggaaaa	gccgcggaaa	agggcccaan	ggaaaaacac	cccaccccan	ccccanaaac	420
acgggggggg	agaatgcatac	acggggcgag	atcaatacca	gatttcaccc	aaaaaacatt	480
cacaacg						487

<210> 145

<211> 254

<212> DNA

<213> Homo sapiens

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<400> 145
ctattgtgct tgcttcatca cgggccatta tcagaatggt ttttagacca tctagaacca      60
cctgaaccac ttgagaatct ttcactgaca gtaaattaca gaacggtggt attacattct      120
gctggtttta caaggtactc aacctgatct tttctgccac ttattgttaa gttgctgatt      180
gcccaagcag cttctttttg tgttccaaag tcccccttag caaggctgat gaattatcat      240
aggaattaat ccag                                         254

```

```

<210> 146
<211> 825
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(825)
<223> n = g, a, c or t

```

```

<400> 146
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cctgaaccac ttgagaatct ttcactgaca gtaaattaca gaacggtggt attacattct      120
gctgtacaag gggactcaac tgatcttttc tggcacttat tggtaagttg ctgattggcc      180
aaggcagctt ctttttgtgt tccaaagtgc cccttagcaa gctgatgaat tatcatagga      240
attaatccag catctattac agcttgggac ctggtgcagg gttgacctgc tggataatgt      300
ttgggaagga aacacactgg gttcccttaa tttatcttat ctctataggg agtgataaga      360
gatatatggg aaagttgtta acaggacatt acaatttgat gaacaacctg ggtctgatac      420
gtccncagnt gggcccacnc gcaacgcaaa taagtttttg gcccaaaccc agggggccca      480
cgaaaaagag gacgcagccc acgtgggntt ggagaacccat cttgaaacan taccctcngg      540
aatagagcgt cccaaanagg gggcggaccc aaggaanaaa gggggaccaa agtaccctgg      600
aaatccacac ataaaacccat actgtaatac tcgtgtgcca cgctgttaat accccanttc      660
accaacaatc cactgggggtc nacacaggat nanttgaaaag cacacggaag agagccgcca      720
acaaaccagn ggggggtgcng ttntgccaag caaccacang ggtgcgctga agtagcaata      780
accagganaa ntggggggga cgagcaactt ngtaaagggt gaacg                                         825

```

```

<210> 147
<211> 463
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(463)
<223> n = g, a, c or t

```

```

<400> 147
ctttatgtgt cctcatatac catacagata taaacattct tgtagacact gtttgggctc      60
tgtcatactt gacagatgga ggtaatgaac agatacagat ggttattgat tcaggagttg      120
tgccctttct tgtgcccctt ctgagccatc aggaagtcaa agttcaaaca gcagccctca      180
gagcagtttg caacatagtg actggcaccg acgagcagac ccaggttggt ctcaattgtg      240
atgtcctgtc acacttccca aatctcttat cacacccaaa agagaagata aataaggaag      300
cagtagtggt tcctttccaa cataacagca ggcaancagc aacaagttca agctgtaata      360
gatgctggat taattcctat gataatttca tcagcnttgc taagngggga catattggaa      420
acacaaaaaa gaagctgcat atggggcaac aatcaggcaa anc                                         463

```

```

<210> 148
<211> 524
<212> DNA
<213> Homo sapiens

```

```

<400> 148
ctttatgtgt cctcatatac catacagata taaacattct tgtagacact gtttgggctc      60
tgtcatactt gacagatgga ggtaatgaac agatacagat ggttattgat tcaggagttg      120

```

tgccctttct	tgtgcccctt	ctgagccatc	aggaagtcaa	agttcaaaca	gcagccctca	180
gagcagttgg	caacatagtg	actggcaccg	acgagcagac	ccagggttgtt	ctcaattgtg	240
atgtcctgtc	acacttccca	aatctcttat	cacacccaaa	agagaagata	aataaggaag	300
cagtgtgggt	cctttccaac	ataacagcag	gcaaccagca	acaagttcaa	gctgtaatag	360
atgctggatt	aattcctatg	ataattcatc	agcttgctaa	gggggacttt	ggaacacaaa	420
aagaagctgc	ttgggcaatc	agcaacttaa	caataagtgg	caagaaaaga	tcagggttgag	480
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<210> 149
 <211> 833
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(833)
 <223> n = g, a, c or t

<400> 149						
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tgtcatactt	gacagatgga	ggtaatgaac	agatacagat	ggttattgat	tcaggagttg	120
tgccctttct	tgtgcccctt	ctgagccatc	aggaagtcaa	agttcaaaca	gcagccctca	180
gagcagttgg	caacatagtg	actggcaccg	acgagcagac	ccagggttgtt	ctcaattgtg	240
atgtcctgtc	acacttccca	aatctcttat	cacacccaaa	agagaagata	aataaggaag	300
cagtgtgggt	cctttccaac	ataacagcag	gcaaccagca	acaagttcaa	gctgtaatag	360
atgctggatt	aattcctatg	ataattcatc	agcttgctaa	gaggggactt	tggaacacaa	420
aaagaagctg	cttgggcaat	cagcaaactt	aacaaataaa	gtggcagaaa	agatcagggt	480
gagtacctcg	tacagcagaa	tgtaatacca	ccgatactgt	taacttntac	ctgtcagtga	540
acagatcctc	aagtggatca	nagagggacc	tagaatgggt	cctaaaaaaaa	aaacaatntc	600
tggataaatt	ngggccggga	ggacatgaaa	agcaaaggca	acaaatcaag	gacacggaac	660
gagaaaccaa	gcanacacat	aggaagacca	cccngtgagc	caacccggga	ctatgaggag	720
gggcntgccc	tccatggana	caggagcagc	gacccaagnc	caaaaaaagg	ggcgaataca	780
gtagaacaag	agnagnaaca	acaccatata	agagagaana	acaccgacag	cca	833

<210> 150
 <211> 557
 <212> DNA
 <213> Homo sapiens

<400> 150						
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cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggg	attacattct	120
gctgtacaag	gtactcaacc	tgatcttttc	tgccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtggt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240
ttaatccagc	atctattaca	gcttgaactt	gttgctgggt	gcctgctggt	atgttggaag	300
ggaaccacac	tgcttcttta	tttatcttct	cttttgggtg	tgataagaga	tttggaagt	360
gtgacaggac	atcacaattg	agaacaacct	gggtctgctc	gtcggtgcca	gtcactatgt	420
tgccaaactgc	tctgagggct	gctgtttgaa	ctttgacttc	ctgatggctc	agaaggggca	480
caagaaaggg	cacaactcct	gaatcaataa	ccatctgtat	ctgttcatta	cctccatctg	540
tcaagtatga	cagagcc					557

<210> 151
 <211> 617
 <212> DNA
 <213> Homo sapiens

<400> 151						
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cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggg	attacattct	120
gctgtacaag	gtactcaacc	tgatcttttc	taccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtggt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240

ttaatccagc	atctattaca	gcttgaactt	gttgctggtt	gcctgctggt	atgttggaaa	300
ggaaccacac	tgcttcctta	tttatcttct	cttttggtg	tgataagaga	tttgggaagt	360
gtgacaggac	atcacaattg	agaacaacct	gggtctgctc	gtcggtgcca	gtcactatgt	420
tgccaactgc	tctgagggct	gctgtttgaa	ctttgacttc	ctgatggctc	agaaggggca	480
caagaaagg	cacaactcct	gaatcaataa	ccatctgtat	ctgttcatta	cctccatctg	540
tcaagtatga	cagaagccca	aacagctgtc	tacaagaatg	tttatatctg	tatgggtatat	600
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<210> 152

<211> 624

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(624)

<223> n = g, a, c or t

<400> 152

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acaagaaagg	gcacaactcc	tgaatcaata	accatctgta	tctgtgtcat	tacctccatc	540
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<210> 153

<211> 2245

<212> DNA

<213> Homo sapiens

<400> 153

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<210> 154
 <211> 521
 <212> PRT
 <213> Homo sapiens

<400> 154

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Arg	Asn	Val	Pro	Gln	Glu	Glu	Ser	Leu	Glu	Asp	Ser	Asp	Val	Asp	Ala
	50					55				60					
Asp	Phe	Lys	Ala	Gln	Asn	Val	Thr	Leu	Glu	Ala	Ile	Leu	Gln	Asn	Ala
65					70					75				80	
Thr	Ser	Asp	Asn	Pro	Val	Val	Gln	Leu	Ser	Ala	Val	Gln	Ala	Ala	Arg
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Lys	Leu	Leu	Ser	Ser	Asp	Gln	Asn	Pro	Pro	Ile	Asp	Asp	Leu	Ile	Lys
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Pro	Ser	Leu	Gln	Phe	Glu	Ala	Ala	Trp	Ala	Leu	Thr	Asn	Ile	Ala	Ser
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Asp	Tyr	Val	Ile	Ser	Leu	Gly	Val	Val	Lys	Pro	Leu	Leu	Ser	Phe	Ile
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Ser	Pro	Ser	Ile	Pro	Ile	Thr	Phe	Leu	Arg	Asn	Val	Thr	Trp	Val	Ile
		210				215					220				
Val	Asn	Leu	Cys	Arg	Asn	Lys	Asp	Pro	Pro	Pro	Pro	Met	Glu	Thr	Val
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Leu	Val	Pro	Leu	Leu	Ser	His	Gln	Glu	Val	Lys	Val	Gln	Thr	Ala	Ala
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Leu	Arg	Ala	Val	Gly	Asn	Ile	Val	Thr	Gly	Thr	Asp	Glu	Gln	Thr	Gln
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Val	Val	Leu	Asn	Cys	Asp	Val	Leu	Ser	His	Phe	Pro	Asn	Leu	Leu	Ser
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His	Pro	Lys	Glu	Lys	Ile	Asn	Lys	Glu	Ala	Val	Trp	Phe	Leu	Ser	Asn
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Ile	Thr	Ala	Gly	Asn	Gln	Gln	Gln	Val	Gln	Ala	Val	Ile	Asp	Ala	Gly
			355					360					365		
Leu	Ile	Pro	Met	Ile	Ile	His	Gln	Leu	Ala	Lys	Gly	Asp	Phe	Gly	Thr
			370				375					380			
Gln	Lys	Glu	Ala	Ala	Trp	Ala	Ile	Ser	Asn	Leu	Thr	Ile	Ser	Gly	Arg
					390					395					400
Lys	Asp	Gln	Val	Glu	Tyr	Leu	Val	Gln	Gln	Asn	Val	Ile	Pro	Pro	Phe
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Cys	Asn	Leu	Leu	Ser	Val	Lys	Asp	Ser	Gln	Val	Val	Gln	Val	Val	Leu
			420					425					430		
Asp	Gly	Leu	Lys	Asn	Ile	Leu	Ile	Met	Ala	Gly	Asp	Glu	Ala	Ser	Thr
			435					440					445		
Ile	Ala	Glu	Ile	Ile	Glu	Glu	Cys	Gly	Gly	Leu	Glu	Lys	Ile	Glu	Val
			450				455						460		
Leu	Gln	Gln	His	Glu	Asn	Glu	Asp	Ile	Tyr	Lys	Leu	Ala	Phe	Glu	Ile
					470					475					480
Ile	Asp	Gln	Tyr	Phe	Ser	Gly	Asp	Asp	Ile	Asp	Glu	Asp	Pro	Cys	Leu
				485						490					495
Ile	Pro	Glu	Ala	Thr	Gln	Gly	Gly	Thr	Tyr	Asn	Phe	Asp	Pro	Thr	Ala
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<210> 155
 <211> 549
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(549)
 <223> n = g, a, c or t

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ttattccact ttattcccct ggggtgattat gaaaggccag gtattgagta ttcacacttn	180
acagacgagg aaaacaagcg ctcagggnag aataagcggt acttgancca ggtcatacaa	240
tacgttcacc tagagtccca nttattctag gaaaccacag gagtttccaa aacaggggtg	300
tttgggtgtn aggaaacaat cntatgggga gatatttttc caagcgcaat taccacaaca	360
ttataaagta ngcctccagg ggggaaaatc aaaaccattc cacgaaaaga aagggtngaa	420
cattctggag agcattgaag gatctttgcg caaagaaatt ccttgggaaa aattttaccc	480
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tgaagcgca	549

<210> 156
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 156	
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gggccaaggg ggttaaattg gagtattcac acttttatac agacgaggga aacaggcctc	240
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<210> 157
 <211> 418
 <212> DNA
 <213> Homo sapiens

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 tattccactt tattccctgg tgattatgaa aggcaggtat tgatattcac acttaacaga 180
 cgaggaaaca gcctcagggg gatcaagctt acttgaccca gtctctctcc tagttccata 240
 tcagaaccaa gattcaaaca ggtttggttt agaaaatcta ggatttttca gccataccaa 300
 aataaagtag cctcagggaa tcaaaacatt cacgaaagaa ggtgacttct gaactgagtc 360
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<210> 158
 <211> 366
 <212> DNA
 <213> Homo sapiens

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 tcctccctcc ccaaacccca aggaactctc actcttgctc aagctgttcc gtccccttac 180
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 agactg 366

<210> 159
 <211> 281
 <212> DNA
 <213> Homo sapiens

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 tattccactt tattccctgg tgattatgaa aggcaggtat tgatatttca cacttaacag 180
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 atcagaacca agattcaaac aggtttggtt tagaaaatct a 281

<210> 160
 <211> 361
 <212> DNA
 <213> Homo sapiens

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 ccaccctga tacaactgcc aggttaattt ccagaattct tgcaagactc agttcagaag 240
 tcaccttctt tcgtgaatgt tttgattccc tgaggctact ttatttttgt atggctgaaa 300
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 a 361

<210> 161
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(407)
 <223> n = g, a, c or t

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<210> 162
 <211> 516
 <212> DNA
 <213> Homo sapiens

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<210> 163
 <211> 3502
 <212> DNA
 <213> Homo sapiens

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atgtctgcta caccgaaaca aa 3502

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<210> 164
<211> 563
<212> PRT
<213> Homo sapiens

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<400> 164
Met Gly Leu Gln Ala Cys Leu Leu Gly Leu Phe Ala Leu Ile Leu Ser
 1          5          10          15
Gly Lys Cys Ser Tyr Ser Pro Glu Pro Asp Gln Arg Arg Thr Leu Pro
          20          25          30
Pro Gly Trp Val Ser Leu Gly Arg Ala Asp Pro Glu Glu Glu Leu Ser
          35          40          45
Leu Thr Phe Ala Leu Arg Gln Asn Val Glu Arg Leu Ser Glu Leu
          50          55          60
Val Gln Ala Val Ser Asp Pro Ser Ser Pro Gln Tyr Gly Lys Tyr Leu
65          70          75          80
Thr Leu Glu Asn Val Ala Asp Leu Val Arg Pro Ser Pro Leu Thr Leu
          85          90          95
His Thr Val Gln Lys Trp Leu Leu Ala Ala Gly Ala Gln Lys Cys His
          100          105          110
Ser Val Ile Thr Gln Asp Phe Leu Thr Cys Trp Leu Ser Ile Arg Gln
          115          120          125
Ala Glu Leu Leu Leu Pro Gly Ala Glu Phe His His Tyr Val Gly Gly
          130          135          140
Pro Thr Glu Thr His Val Val Arg Ser Pro His Pro Tyr Gln Leu Pro
145          150          155          160

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Gln Ala Leu Ala Pro His Val Asp Phe Val Gly Gly Leu His Arg Phe
 165 170 175
 Pro Pro Thr Ser Ser Leu Arg Gln Arg Pro Glu Pro Gln Val Thr Gly
 180 185 190
 Thr Val Gly Leu His Leu Gly Val Thr Pro Ser Val Ile Arg Lys Arg
 195 200 205
 Tyr Asn Leu Thr Ser Gln Asp Val Gly Ser Gly Thr Ser Asn Asn Ser
 210 215 220
 Gln Ala Cys Ala Gln Phe Leu Glu Gln Tyr Phe His Asp Ser Asp Leu
 225 230 235 240
 Ala Gln Phe Met Arg Leu Phe Gly Gly Asn Phe Ala His Gln Ala Ser
 245 250 255
 Val Ala Arg Val Val Gly Gln Gln Gly Arg Gly Arg Ala Gly Ile Glu
 260 265 270
 Ala Ser Leu Asp Val Gln Tyr Leu Met Ser Ala Gly Ala Asn Ile Ser
 275 280 285
 Thr Trp Val Tyr Ser Ser Pro Gly Arg His Glu Gly Gln Glu Pro Phe
 290 295 300
 Leu Gln Trp Leu Met Leu Leu Ser Asn Glu Ser Ala Leu Pro His Val
 305 310 315 320
 His Thr Val Ser Tyr Gly Asp Asp Glu Asp Ser Leu Ser Ser Ala Tyr
 325 330 335
 Ile Gln Arg Val Asn Thr Glu Leu Met Lys Ala Ala Arg Gly Leu
 340 345 350
 Thr Leu Leu Phe Ala Ser Gly Asp Ser Gly Ala Gly Cys Trp Ser Val
 355 360 365
 Ser Gly Arg His Gln Phe Arg Pro Thr Phe Pro Ala Ser Ser Pro Tyr
 370 375 380
 Val Thr Thr Val Gly Gly Thr Ser Phe Gln Glu Pro Phe Leu Ile Thr
 385 390 395 400
 Asn Glu Ile Val Asp Tyr Ile Ser Gly Gly Phe Ser Asn Val Phe
 405 410 415
 Pro Arg Pro Ser Tyr Gln Glu Glu Ala Val Thr Lys Phe Leu Ser Ser
 420 425 430
 Ser Pro His Leu Pro Pro Ser Ser Tyr Phe Asn Ala Ser Gly Arg Ala
 435 440 445
 Tyr Pro Asp Val Ala Ala Leu Ser Asp Gly Tyr Trp Val Val Ser Asn
 450 455 460
 Arg Val Pro Ile Pro Trp Val Ser Gly Thr Ser Ala Ser Thr Pro Val
 465 470 475 480
 Phe Gly Gly Ile Leu Ser Leu Ile Asn Glu His Arg Ile Leu Ser Gly
 485 490 495
 Arg Pro Pro Leu Gly Phe Leu Asn Pro Arg Leu Tyr Gln Gln His Gly
 500 505 510
 Ala Gly Leu Phe Asp Val Thr Arg Gly Cys His Glu Ser Cys Leu Asp
 515 520 525
 Glu Glu Val Glu Gly Gln Gly Phe Cys Ser Gly Pro Gly Trp Asp Pro
 530 535 540
 Val Thr Gly Trp Gly Thr Pro Asn Phe Pro Ala Leu Leu Lys Thr Leu
 545 550 555 560
 Leu Asn Pro

<210> 165
 <211> 602
 <212> DNA
 <213> Homo sapiens

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 caccaaaatc actcaactca ggagccacaa atagtccagc aatttcattt ccctcaacgc 180

tatttttagtc	tcaaaggaaa	ccatgtaaat	ttcatcaaga	gaagggtcaaa	ggggatatat	240
cgccactgaa	aatgtttaca	cagtgacat	gagttacaca	tttacttaga	gaaacttaac	300
ttaataaaga	atctgtagag	tgtgttggct	tggaaaacac	acacacaaaag	aagatacctc	360
acgcttagta	tgttctgctt	tctgaacagc	caccactggg	aaccagtggt	cctctgtggg	420
actgaactcc	taaacgcagg	gtgcgggagc	tgggcaggag	aggtgacctc	caactgtggt	480
cctaaagtcc	gtctttcgct	tggctcagga	caaagcgggt	taacgagtca	aagtctctgc	540
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gt						602

<210> 166
 <211> 105
 <212> DNA
 <213> Homo sapiens

ccacctccat	ttctggaggc	agacatacgt	tcttgatgag	aactacttct	gtttctggag	60
gtggagtcac	atccttgccc	agagccattt	ctgtttctga	tagtg		105

<210> 167
 <211> 105
 <212> DNA
 <213> Homo sapiens

cactatcaga	aacagaaatg	gctctgggca	aggatgtgac	tccacctcca	gaaacagaag	60
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<210> 168
 <211> 105
 <212> DNA
 <213> Homo sapiens

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<210> 169
 <211> 4779
 <212> DNA
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ccgtctcggc	ggcggcgggc	agttgcagtg	gtgcagaatg	gctgacctca	gtcttgccaga	180
tgcattaaca	gaaccatctc	cagacattga	gggagagata	aagcgggact	tcattgccac	240
actagaggca	gaggcctttg	atgatgttgt	gggagaaaact	gttggaaaaa	cagactatat	300
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agaaactagc	cagattgaag	atactccatc	ttctaaacca	acactcctag	ccaatgggtg	420
tcattggagta	gaaggagcgc	atactacagg	gtctccaact	gaattccttg	aagagaaaat	480
ggcctaccag	gaatacccaa	atagccagaa	ctggccagaa	gataccaact	tttgtttcca	540
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aaatgatccc	ttgaaagaca	gttacgggtat	gtctccctgc	aacacagctg	ttgtacctca	720
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aaaaaccgag	gtggcattgg	ctaaagatat	ggaatcaccc	accaaattag	atgtgacact	1020
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ttttgtccct	ttattttttt	ctaataacct	aaaaactggc	aaaatagtct	tgcaggttga	4440
agccatgtct	acatgaaagt	cctcagtaag	tgtagagggg	aacaggggcg	agatatcctt	4500

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atgccacccc cgctggagga tgtgggcagc ttagggccct ggaggcgggtg cggcagggaa 4560
gaggggtgca gaggtgtggt ctggtgagcc ggtcaggcac acaagggggcc cttggagcgt 4620
ggactgggttg gttttgccat tttgtgtgt gtatgctgct tttcttttct aaccaagagg 4680
ctggttttgg catctctgtc ccattccctg ggatctgggtg gtcagcccta ggataaaaag 4740
ccagggtctgg agaacaagaa agggccagga gatgaattc 4779

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<210> 170
<211> 1152
<212> PRT
<213> Homo sapiens

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<400> 170
Met Ala Asp Leu Ser Leu Ala Asp Ala Leu Thr Glu Pro Ser Pro Asp
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Ile Glu Gly Glu Ile Lys Arg Asp Phe Ile Ala Thr Leu Glu Ala Glu
20 25 30
Ala Phe Asp Asp Val Val Gly Glu Thr Val Gly Lys Thr Asp Tyr Ile
35 40 45
Pro Leu Leu Asp Val Asp Glu Lys Thr Gly Asn Ser Glu Ser Lys Lys
50 55 60
Lys Pro Cys Ser Glu Thr Ser Gln Ile Glu Asp Thr Pro Ser Ser Lys
65 70 75 80
Pro Thr Leu Leu Ala Asn Gly Gly His Gly Val Glu Gly Ser Asp Thr
85 90 95
Thr Gly Ser Pro Thr Glu Phe Leu Glu Glu Lys Met Ala Tyr Gln Glu
100 105 110
Tyr Pro Asn Ser Gln Asn Trp Pro Glu Asp Thr Asn Phe Cys Phe Gln
115 120 125
Pro Glu Gln Val Val Asp Pro Ile Gln Thr Asp Pro Phe Lys Met Tyr
130 135 140
His Asp Asp Asp Leu Ala Asp Leu Val Phe Pro Ser Ser Ala Thr Ala
145 150 155 160
Asp Thr Ser Ile Phe Ala Gly Gln Asn Asp Pro Leu Lys Asp Ser Tyr
165 170 175
Gly Met Ser Pro Cys Asn Thr Ala Val Val Pro Gln Gly Trp Ser Val
180 185 190
Glu Ala Leu Asn Ser Pro His Ser Glu Ser Phe Val Ser Pro Glu Ala
195 200 205
Val Ala Glu Pro Pro Gln Pro Thr Ala Val Pro Leu Glu Leu Ala Lys
210 215 220
Glu Ile Glu Met Ala Ser Glu Glu Arg Pro Pro Ala Gln Ala Leu Glu
225 230 235 240
Ile Met Met Gly Leu Lys Thr Thr Asp Met Ala Pro Ser Lys Glu Thr
245 250 255
Glu Met Ala Leu Ala Lys Asp Met Ala Leu Ala Thr Lys Thr Glu Val
260 265 270
Ala Leu Ala Lys Asp Met Glu Ser Pro Thr Lys Leu Asp Val Thr Leu
275 280 285
Ala Lys Asp Met Gln Pro Ser Met Glu Ser Asp Met Ala Leu Val Lys
290 295 300
Asp Met Glu Leu Pro Thr Glu Lys Glu Val Ala Leu Val Lys Asp Val
305 310 315 320
Arg Trp Pro Thr Glu Thr Asp Val Ser Ser Ala Lys Asn Val Val Leu
325 330 335
Pro Thr Glu Thr Glu Val Ala Pro Ala Lys Asp Val Thr Leu Leu Lys
340 345 350
Glu Thr Glu Arg Ala Ser Pro Ile Lys Met Asp Leu Ala Pro Ser Lys
355 360 365
Asp Met Gly Pro Pro Lys Glu Asn Lys Lys Glu Thr Glu Arg Ala Ser
370 375 380

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Pro Ile Lys Met Asp Leu Ala Pro Ser Lys Asp Met Gly Pro Pro Lys
 385 390 395 400
 Glu Asn Lys Ile Val Pro Ala Lys Asp Leu Val Leu Leu Ser Glu Ile
 405 410 415
 Glu Val Ala Gln Ala Asn Asp Ile Ile Ser Ser Thr Glu Ile Ser Ser
 420 425 430
 Ala Glu Lys Val Ala Leu Ser Ser Glu Thr Glu Val Ala Leu Ala Arg
 435 440 445
 Asp Met Thr Leu Pro Pro Glu Thr Asn Val Ile Leu Thr Lys Asp Lys
 450 455 460
 Ala Leu Pro Leu Glu Ala Glu Val Ala Pro Val Lys Asp Met Ala Gln
 465 470 475 480
 Leu Pro Glu Thr Glu Ile Ala Pro Ala Lys Asp Val Ala Pro Ser Thr
 485 490 495
 Val Lys Glu Val Gly Leu Leu Lys Asp Met Ser Pro Leu Ser Glu Thr
 500 505 510
 Glu Met Ala Leu Gly Lys Asp Val Thr Pro Pro Pro Glu Thr Glu Val
 515 520 525
 Val Leu Ile Lys Asn Val Cys Leu Pro Pro Glu Met Glu Val Ala Leu
 530 535 540
 Thr Glu Asp Gln Val Pro Ala Leu Lys Thr Glu Ala Pro Leu Ala Lys
 545 550 555 560
 Asp Gly Val Leu Thr Leu Ala Asn Asn Val Thr Pro Ala Lys Asp Val
 565 570 575
 Pro Pro Leu Ser Glu Thr Glu Ala Thr Pro Val Pro Ile Lys Asp Met
 580 585 590
 Glu Ile Ala Gln Thr Gln Lys Gly Ile Ser Glu Asp Ser His Leu Glu
 595 600 605
 Ser Leu Gln Asp Val Gly Gln Ser Ala Ala Pro Thr Phe Met Ile Ser
 610 615 620
 Pro Glu Thr Ile Thr Gly Thr Gly Lys Lys Cys Ser Leu Pro Ala Glu
 625 630 635 640
 Glu Asp Ser Val Leu Glu Lys Leu Gly Glu Arg Lys Pro Cys Asn Ser
 645 650 655
 Gln Pro Ser Glu Leu Ser Ser Glu Thr Ser Gly Ile Ala Arg Pro Glu
 660 665 670
 Glu Gly Arg Pro Val Val Ser Gly Thr Gly Asn Asp Ile Thr Thr Pro
 675 680 685
 Pro Asn Lys Glu Leu Pro Pro Ser Pro Glu Lys Lys Thr Lys Pro Leu
 690 695 700
 Ala Thr Thr Gln Pro Ala Lys Thr Ser Thr Ser Lys Ala Lys Thr Gln
 705 710 715 720
 Pro Thr Ser Leu Pro Lys Gln Pro Ala Pro Thr Thr Ile Gly Gly Leu
 725 730 735
 Asn Lys Lys Pro Met Ser Leu Ala Ser Gly Leu Val Pro Ala Ala Pro
 740 745 750
 Pro Lys Arg Pro Ala Val Ala Ser Ala Arg Pro Ser Ile Leu Pro Ser
 755 760 765
 Lys Asp Val Lys Pro Lys Pro Ile Ala Asp Ala Lys Ala Pro Glu Lys
 770 775 780
 Arg Ala Ser Pro Ser Lys Pro Ala Ser Ala Pro Ala Ser Arg Ser Gly
 785 790 795 800
 Ser Lys Ser Thr Gln Thr Val Ala Lys Thr Thr Thr Ala Ala Ala Val
 805 810 815
 Ala Ser Thr Gly Pro Ser Ser Arg Ser Pro Ser Thr Leu Leu Pro Lys
 820 825 830
 Lys Pro Thr Ala Ile Lys Thr Glu Gly Lys Pro Ala Glu Val Lys Lys
 835 840 845
 Met Thr Ala Lys Ser Val Pro Ala Asp Leu Ser Arg Pro Lys Ser Thr
 850 855 860

Ser	Thr	Ser	Ser	Met	Lys	Lys	Thr	Thr	Thr	Leu	Ser	Gly	Thr	Ala	Pro
865					870					875					880
Ala	Ala	Gly	Val	Val	Pro	Ser	Arg	Val	Lys	Ala	Thr	Pro	Met	Pro	Ser
				885					890						895
Arg	Pro	Ser	Thr	Thr	Pro	Phe	Ile	Asp	Lys	Lys	Pro	Thr	Ser	Ala	Lys
			900					905					910		
Pro	Ser	Ser	Thr	Thr	Pro	Arg	Leu	Ser	Arg	Leu	Ala	Thr	Asn	Thr	Ser
			915				920					925			
Ala	Pro	Asp	Leu	Lys	Asn	Val	Arg	Ser	Lys	Val	Gly	Ser	Thr	Glu	Asn
			930			935					940				
Ile	Lys	His	Gln	Pro	Gly	Gly	Gly	Arg	Ala	Lys	Val	Glu	Lys	Lys	Thr
945					950					955					960
Glu	Ala	Ala	Ala	Thr	Thr	Arg	Lys	Pro	Glu	Ser	Asn	Ala	Val	Thr	Lys
				965					970						975
Thr	Ala	Gly	Pro	Ile	Ala	Ser	Ala	Gln	Lys	Gln	Pro	Ala	Gly	Lys	Val
			980					985					990		
Gln	Ile	Val	Ser	Lys	Lys	Val	Ser	Tyr	Ser	His	Ile	Gln	Ser	Lys	Cys
			995				1000					1005			
Gly	Ser	Lys	Asp	Asn	Ile	Lys	His	Val	Pro	Gly	Gly	Gly	Asn	Val	Gln
			1010			1015					1020				
Ile	Gln	Asn	Lys	Lys	Val	Asp	Ile	Ser	Lys	Val	Ser	Ser	Lys	Cys	Gly
1025					1030					1035					1040
Ser	Lys	Ala	Asn	Ile	Lys	His	Lys	Pro	Gly	Gly	Gly	Asp	Val	Lys	Ile
			1045						1050					1055	
Glu	Ser	Gln	Lys	Leu	Asn	Phe	Lys	Glu	Lys	Ala	Gln	Ala	Lys	Val	Gly
			1060					1065					1070		
Ser	Leu	Asp	Asn	Val	Gly	His	Leu	Pro	Ala	Gly	Gly	Ala	Val	Lys	Thr
			1075				1080					1085			
Glu	Gly	Gly	Gly	Ser	Glu	Ala	Pro	Leu	Cys	Pro	Gly	Pro	Pro	Ala	Gly
			1090			1095					1100				
Glu	Glu	Pro	Ala	Ile	Ser	Glu	Ala	Ala	Pro	Glu	Ala	Gly	Ala	Pro	Thr
1105					1110					1115					1120
Ser	Ala	Ser	Gly	Leu	Asn	Gly	His	Pro	Thr	Leu	Ser	Gly	Gly	Gly	Asp
			1125						1130					1135	
Gln	Arg	Glu	Ala	Gln	Thr	Leu	Asp	Ser	Gln	Ile	Gln	Glu	Thr	Ser	Ile
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<210> 171
 <211> 4665
 <212> DNA
 <213> Homo sapiens

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agaaaactagc	420
tcattggagta	480
ggcctaccag	540
acctgagcaa	600
cctggcagat	660
aaatgatccc	720
ggggtggtct	780
tgttgacagaa	840
ggcatcagaa	900
tgcacatggca	960
aaaaaccgag	1020
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 Lys Pro Cys Ser Glu Thr Ser Gln Ile Glu Asp Thr Pro Ser Ser Lys
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<210> 174

<211> 1082

<212> PRT

<213> Homo sapiens

<400> 174

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Pro	Leu	Leu	Asp	Val	Asp	Glu	Lys	Thr	Gly	Asn	Ser	Glu	Ser	Lys	Lys
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Pro	Thr	Leu	Leu	Ala	Asn	Gly	Gly	His	Gly	Val	Glu	Gly	Ser	Asp	Thr
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Tyr	Pro	Asn	Ser	Gln	Asn	Trp	Pro	Glu	Asp	Thr	Asn	Phe	Cys	Phe	Gln
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Pro	Glu	Gln	Val	Val	Asp	Pro	Ile	Gln	Thr	Asp	Pro	Phe	Lys	Met	Tyr
	130					135					140				
His	Asp	Asp	Asp	Leu	Ala	Asp	Leu	Val	Phe	Pro	Ser	Ser	Ala	Thr	Ala
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Gly	Met	Ser	Pro	Cys	Asn	Thr	Ala	Val	Val	Pro	Gln	Gly	Trp	Ser	Val
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Glu	Asn	Lys	Ile	Val	Pro	Ala	Lys	Asp	Leu	Val	Leu	Leu	Ser	Glu	Ile
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Val	Leu	Ile	Lys	Asn	Val	Cys	Leu	Pro	Pro	Glu	Met	Glu	Val	Ala	Leu
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Thr	Glu	Asp	Gln	Val	Pro	Ala	Leu	Lys	Thr	Glu	Ala	Pro	Leu	Ala	Lys
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Asp	Gly	Val	Leu	Thr	Leu	Ala	Asn	Asn	Val	Thr	Pro	Ala	Lys	Asp	Val
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Pro	Pro	Leu	Ser	Glu	Thr	Glu	Ala	Thr	Pro	Val	Pro	Ile	Lys	Asp	Met
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Glu	Ile	Ala	Gln	Thr	Gln	Lys	Gly	Ile	Ser	Glu	Asp	Ser	His	Leu	Glu
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Ser	Leu	Gln	Asp	Val	Gly	Gln	Ser	Ala	Ala	Pro	Thr	Phe	Met	Ile	Ser
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Pro	Glu	Thr	Ile	Thr	Gly	Thr	Gly	Lys	Lys	Cys	Ser	Leu	Pro	Ala	Glu
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Glu	Asp	Ser	Val	Leu	Glu	Lys	Leu	Gly	Glu	Arg	Lys	Pro	Cys	Asn	Ser
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Gln	Pro	Ser	Glu	Leu	Ser	Ser	Glu	Thr	Ser	Gly	Ile	Ala	Arg	Pro	Glu
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Asn	Lys	Lys	Pro	Met	Ser	Leu	Ala	Ser	Gly	Leu	Val	Pro	Ala	Ala	Pro
			740					745					750		
Pro	Lys	Arg	Pro	Ala	Val	Ala	Ser	Ala	Arg	Pro	Ser	Ile	Leu	Pro	Ser
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Lys	Pro	Thr	Ala	Ile	Lys	Thr	Glu	Gly	Lys	Pro	Ala	Glu	Val	Lys	Lys
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Val	Asp	Ile	Ser	Lys	Val	Ser	Ser	Lys	Cys	Gly	Ser	Lys	Ala	Asn	Ile
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Lys	His	Lys	Pro	Gly	Gly	Gly	Asp	Val	Lys	Ile	Glu	Ser	Gln	Lys	Leu
			980					985					990		
Asn	Phe	Lys	Glu	Lys	Ala	Gln	Ala	Lys	Val	Gly	Ser	Leu	Asp	Asn	Val
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Gly His Leu Pro Ala Gly Gly Ala Val Lys Thr Glu Gly Gly Gly Ser
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 Glu Ala Pro Leu Cys Pro Gly Pro Pro Ala Gly Glu Glu Pro Ala Ile
 1025 1030 1035 1040
 Ser Glu Ala Ala Pro Glu Ala Gly Ala Pro Thr Ser Ala Ser Gly Leu
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 <212> DNA
 <213> Homo sapiens

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<210> 176
 <211> 1041
 <212> PRT
 <213> Homo sapiens

<400> 176

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Ala	Phe	Asp	Asp	Val	Val	Gly	Glu	Thr	Val	Gly	Lys	Thr	Asp	Tyr	Ile
		35					40					45			
Pro	Leu	Leu	Asp	Val	Asp	Glu	Lys	Thr	Gly	Asn	Ser	Glu	Ser	Lys	Lys
		50				55					60				
Lys	Pro	Cys	Ser	Glu	Thr	Ser	Gln	Ile	Glu	Asp	Thr	Pro	Ser	Ser	Lys
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Pro	Thr	Leu	Leu	Ala	Asn	Gly	Gly	His	Gly	Val	Glu	Gly	Ser	Asp	Thr
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Tyr	Pro	Asn	Ser	Gln	Asn	Trp	Pro	Glu	Asp	Thr	Asn	Phe	Cys	Phe	Gln
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Pro	Glu	Gln	Val	Val	Asp	Pro	Ile	Gln	Thr	Asp	Pro	Phe	Lys	Met	Tyr
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His	Asp	Asp	Asp	Leu	Ala	Asp	Leu	Val	Phe	Pro	Ser	Ser	Ala	Thr	Ala
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Asp	Thr	Ser	Ile	Phe	Ala	Gly	Gln	Asn	Asp	Pro	Leu	Lys	Asp	Ser	Tyr
			165					170					175		
Val	Pro	Leu	Glu	Leu	Ala	Lys	Glu	Ile	Glu	Met	Ala	Ser	Glu	Glu	Arg
		180						185					190		

Pro	Pro	Ala	Gln	Ala	Leu	Glu	Ile	Met	Met	Gly	Leu	Lys	Thr	Thr	Asp
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Met	Ala	Pro	Ser	Lys	Glu	Thr	Glu	Met	Ala	Leu	Ala	Lys	Asp	Met	Ala
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Thr	Lys	Leu	Asp	Val	Thr	Leu	Ala	Lys	Asp	Met	Gln	Pro	Ser	Met	Glu
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Ser	Asp	Met	Ala	Leu	Val	Lys	Asp	Met	Glu	Leu	Pro	Thr	Glu	Lys	Glu
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Val	Ala	Leu	Val	Lys	Asp	Val	Arg	Trp	Pro	Thr	Glu	Thr	Asp	Val	Ser
	275						280					285			
Ser	Ala	Lys	Asn	Val	Val	Leu	Pro	Thr	Glu	Thr	Glu	Val	Ala	Pro	Ala
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Lys	Asp	Val	Thr	Leu	Leu	Lys	Glu	Thr	Glu	Arg	Ala	Ser	Pro	Ile	Lys
305				310						315					320
Met	Asp	Leu	Ala	Pro	Ser	Lys	Asp	Met	Gly	Pro	Pro	Lys	Glu	Asn	Lys
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Lys	Glu	Thr	Glu	Arg	Ala	Ser	Pro	Ile	Lys	Met	Asp	Leu	Ala	Pro	Ser
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	355						360					365			
Leu	Val	Leu	Leu	Ser	Glu	Ile	Glu	Val	Ala	Gln	Ala	Asn	Asp	Ile	Ile
	370					375					380				
Ser	Ser	Thr	Glu	Ile	Ser	Ser	Ala	Glu	Lys	Val	Ala	Leu	Ser	Ser	Glu
385				390						395					400
Thr	Glu	Val	Ala	Leu	Ala	Arg	Asp	Met	Thr	Leu	Pro	Pro	Glu	Thr	Asn
			405						410					415	
Val	Ile	Leu	Thr	Lys	Asp	Lys	Ala	Leu	Pro	Leu	Glu	Ala	Glu	Val	Ala
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Pro	Val	Lys	Asp	Met	Ala	Gln	Leu	Pro	Glu	Thr	Glu	Ile	Ala	Pro	Ala
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Lys	Asp	Val	Ala	Pro	Ser	Thr	Val	Lys	Glu	Val	Gly	Leu	Leu	Lys	Asp
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Pro	Pro	Pro	Glu	Thr	Glu	Val	Val	Leu	Ile	Lys	Asn	Val	Cys	Leu	Pro
			485						490					495	
Pro	Glu	Met	Glu	Val	Ala	Leu	Thr	Glu	Asp	Gln	Val	Pro	Ala	Leu	Lys
	500							505					510		
Thr	Glu	Ala	Pro	Leu	Ala	Lys	Asp	Gly	Val	Leu	Thr	Leu	Ala	Asn	Asn
	515						520					525			
Val	Thr	Pro	Ala	Lys	Asp	Val	Pro	Pro	Leu	Ser	Glu	Thr	Glu	Ala	Thr
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Pro	Val	Pro	Ile	Lys	Asp	Met	Glu	Ile	Ala	Gln	Thr	Gln	Lys	Gly	Ile
545				550						555					560
Ser	Glu	Asp	Ser	His	Leu	Glu	Ser	Leu	Gln	Asp	Val	Gly	Gln	Ser	Ala
			565						570					575	
Ala	Pro	Thr	Phe	Met	Ile	Ser	Pro	Glu	Thr	Ile	Thr	Gly	Thr	Gly	Lys
		580						585					590		
Lys	Cys	Ser	Leu	Pro	Ala	Glu	Glu	Asp	Ser	Val	Leu	Glu	Lys	Leu	Gly
	595						600					605			
Glu	Arg	Lys	Pro	Cys	Asn	Ser	Gln	Pro	Ser	Glu	Leu	Ser	Ser	Glu	Thr
	610					615					620				
Ser	Gly	Ile	Ala	Arg	Pro	Glu	Glu	Gly	Arg	Pro	Val	Val	Ser	Gly	Thr
625				630						635					640
Gly	Asn	Asp	Ile	Thr	Pro	Pro	Asn	Lys	Glu	Leu	Pro	Pro	Ser	Pro	Pro
			645					650					655		
Glu	Lys	Lys	Thr	Lys	Pro	Leu	Ala	Thr	Gln	Pro	Ala	Lys	Thr	Ser	Ser
			660					665				670			

Thr Ser Lys Ala Lys Thr Gln Pro Thr Ser Leu Pro Lys Gln Pro Ala
 675 680 685
 Pro Thr Thr Ile Gly Gly Leu Asn Lys Lys Pro Met Ser Leu Ala Ser
 690 695 700
 Gly Leu Val Pro Ala Ala Pro Pro Lys Arg Pro Ala Val Ala Ser Ala
 705 710 715 720
 Arg Pro Ser Ile Leu Pro Ser Lys Asp Val Lys Pro Lys Pro Ile Ala
 725 730 735
 Asp Ala Lys Ala Pro Glu Lys Arg Ala Ser Pro Ser Lys Pro Ala Ser
 740 745 750
 Ala Pro Ala Ser Arg Ser Gly Ser Lys Ser Thr Gln Thr Val Ala Lys
 755 760 765
 Thr Thr Thr Ala Ala Ala Val Ala Ser Thr Gly Pro Ser Ser Arg Ser
 770 775 780
 Pro Ser Thr Leu Leu Pro Lys Lys Pro Thr Ala Ile Lys Thr Glu Gly
 785 790 795 800
 Lys Pro Ala Glu Val Lys Lys Met Thr Ala Lys Ser Val Pro Ala Asp
 805 810 815
 Leu Ser Arg Pro Lys Ser Thr Ser Thr Ser Ser Met Lys Lys Thr Thr
 820 825 830
 Thr Leu Ser Gly Thr Ala Pro Ala Ala Gly Val Val Pro Ser Arg Val
 835 840 845
 Lys Ala Thr Pro Met Pro Ser Arg Pro Ser Thr Thr Pro Phe Ile Asp
 850 855 860
 Lys Lys Pro Thr Ser Ala Lys Pro Ser Ser Thr Thr Pro Arg Leu Ser
 865 870 875 880
 Arg Leu Ala Thr Asn Thr Ser Ala Pro Asp Leu Lys Asn Val Arg Ser
 885 890 895
 Lys Val Gly Ser Thr Glu Asn Ile Lys His Gln Pro Gly Gly Gly Arg
 900 905 910
 Val Gln Ile Gln Asn Lys Lys Val Asp Ile Ser Lys Val Ser Ser Lys
 915 920 925
 Cys Gly Ser Lys Ala Asn Ile Lys His Lys Pro Gly Gly Gly Asp Val
 930 935 940
 Lys Ile Glu Ser Gln Lys Leu Asn Phe Lys Glu Lys Ala Gln Ala Lys
 945 950 955 960
 Val Gly Ser Leu Asp Asn Val Gly His Leu Pro Ala Gly Gly Ala Val
 965 970 975
 Lys Thr Glu Gly Gly Gly Ser Glu Ala Pro Leu Cys Pro Gly Pro Pro
 980 985 990
 Ala Gly Glu Glu Pro Ala Ile Ser Glu Ala Ala Pro Glu Ala Gly Ala
 995 1000 1005
 Pro Thr Ser Ala Ser Gly Leu Asn Gly His Pro Thr Leu Ser Gly Gly
 1010 1015 1020
 Gly Asp Gln Arg Glu Ala Gln Thr Leu Asp Ser Gln Ile Gln Glu Thr
 1025 1030 1035 1040
 Asn

<210> 177
 <211> 326
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(326)
 <223> n = g, a, c or t

<400> 177
 ctcataagac gaagcttcac aaaagatgtc taagcaacag ccaactcagt ttataaatcc 60
 agaaacacct tggctatggt ggatttgcaa acctccccag aatcaagttc accgaaaatc 120

agtgaaaaaa	ggtttatgag	ttcacactga	taggtgngtc	ggtgaatcag	gtctaggaca	180
acatcgactc	tcataaacna	gcctattcct	aactgatctg	taccagaaa	gagtcatacc	240
tgagtagcag	caggtaataa	acattgaaag	gaactgtcca	gattgaggct	tcaaactgtt	300
gacaattgaa	gagcgagggg	tcaatg				326

<210> 178
 <211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(328)
 <223> n = g, a, c or t

<400> 178						
cttgaccctt	cgctcttcaa	tttcaacatg	ttgaagcctc	aaatcctggg	acagggttctt	60
tcaatttttt	cttgctgctg	ccagggtatga	ctcgttttctg	ggtacagatc	agtttaggaat	120
aggctgntta	tgagagtcga	tattttcctag	acctgattca	ccgaccacca	tcagttgtga	180
actcataaac	ctttttttcac	tgatttttcg	gtgaacttga	ttggggagggt	ttgcnaattn	240
ccacatagcc	cggtgttntc	tggatttata	aagctgagtt	ggctgttgct	atacggacct	300
ctatatttgt	gaagcttcgt	cttatgag				328

<210> 179
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(307)
 <223> n = g, a, c or t

<400> 179						
cttganccct	cgctcttcaa	tttcaacagt	tgaagcctca	atctggacag	ttcttttcaat	60
ttttttctgct	gctccaggta	tgactctttc	tgggtacaga	tcagtttagga	ataggctgtt	120
tatgagagtc	gatttttccta	gacctgattc	accgaccacc	atcagtggtga	actcaaaacc	180
tttttttcaact	gatttttcggt	gaacttgatt	ggggagggtt	gcaaataccaa	catagccagg	240
tgttttctgga	tttataaaact	gagttggctg	ttgcttagac	atcttttgtg	aagcttcgtc	300
ttatgag						307

<210> 180
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 180						
ctcataagac	gaagcttcac	aaaagatgtc	taagcaacag	ccaactcagt	ttataaatcc	60
agaaacacct	ggctatgttg	gatttgcaaa	cctccccaat	caagttcacc	gaaaatcagt	120
gaaaaaaagg	tttgagttca	cactgatggg	ggtcgggtgaa	tcagggtctag	gaaaatcgac	180
tctcataaac	agcctattcc	taactgatct	gtaccagaaa	agagtcatac	ctggagcagc	240
agaaaaaatt	gaaagaactg	tccagattga	ggcttcaact	gttgaaattg	aagagcgagg	300
ggtcaag						307

<210> 181
 <211> 302
 <212> DNA
 <213> Homo sapiens

<400> 181						
ctcataagac	gaagcttcac	aaaagatgtc	taagcaacag	ccaactcagt	ttataaatcc	60

agaaacacct	ggctatgttg	gatttgcaaa	cctccccatc	aagttcaccg	aatcagtgga	120
aaaaagggtt	tgagttcaca	ctgatgtggg	cggatgaatca	gggttaggaa	aatcgactct	180
cataaacagc	ctattcctaa	ctgatctgta	cccgaagag	tcataacctga	gcagcagaaa	240
aaattgaaa	aactgtccag	attgaggctt	caactgttga	aattgaagag	cgaggggtca	300
ag						302

<210> 182
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 182						
ctcataagac	gaagcttcac	aaaagatgtc	taagcaacag	ccaactcagt	ttataaatcc	60
agaaacacct	ggctatgttg	gatttgcaaa	cctccccaat	caagttcacc	gaaaatcagt	120
gaaaaaagg	tttgagttca	caactgatgg	gggtcggtag	tcaggtctag	gaaaatcgac	180
tctcataaac	agcctattcc	taactgatct	gtaccagaa	agagtcatac	ctggagcagc	240
agaaaaaatt	gaaagaactg	tccagattga	ggcttcaact	gttgaaattg	aagagcgagg	300
ggtcaag						307

<210> 183
 <211> 3433
 <212> DNA
 <213> Homo sapiens

<400> 183						
cccagctcgg	tgctgccgcc	atcttcttgg	aggacaggag	gagagggcga	ggctccccct	60
ccccgtgatc	gctccgcact	cccgccacca	cctgcccctc	cgcgaccgcc	tctctcctcc	120
tcagtgggca	cttgtctcct	tctaacaaac	ggccttcccc	ccactccagt	taccacccgc	180
aaggcgaaga	ttctcattac	ctgttccact	cttataagca	taagaaaacc	gagctcataa	240
gacgaagctt	cacaaaagat	gtctaagcaa	cagccaactc	agtttataaa	tccagaaaaca	300
cctggctatg	ttggatttgc	aaacctcccc	aatcaagttc	accgaaaatc	agtgaaaaaa	360
ggttttgagt	tcacactgat	gggtggctgg	gaatcagggtc	taggaaaatc	gactctcata	420
aacagcctat	tcctaactga	tctgtaccca	gaaagagtca	tacctggagc	agcagaaaaa	480
attgaaagaa	ctgtccagat	tgaggcttca	actgttgaaa	ttgaagagcg	aggggtcaag	540
ctacgcctga	cagtggtaga	taccctggc	tatggtagac	ctatcaactg	cagagattgt	600
tttaagacaa	ttatctccta	tattgatgag	caatttgaga	ggtacctgca	tgacgagagc	660
ggcttgaaca	ggcggcacat	cattgataat	aggggtgcatt	gttgctttta	ctttatttca	720
ccttttggac	atggacttaa	gcccttagat	gtggcggtta	tgaaggcaat	acacaacaag	780
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ctgaagaaaa	ggattctgga	tgaattgaa	gaacataaca	tcaaaatcta	tcacttacct	900
gatgcagaat	cagatgaaga	tgaagatttt	aaagagcaga	ctagacttct	caaggctagc	960
atcccattct	ctgtggttgg	atccaatcag	ttgattgaag	ccaaaggaaa	gaaggctcaga	1020
ggcgcctct	acccctgggg	tggtgtggaa	gtggagaacc	cagagcacia	tgactttctg	1080
aagctgagaa	ccatgctcat	caccacatg	caggatctcc	aggaggtgac	ccaggacctt	1140
cattatgaaa	acttccgttc	tgagagactc	aagagaggcg	gcaggaaaagt	ggagaatgag	1200
gacatgaata	aagaccagat	cttgctggaa	aaagaagctg	agctccgccg	catgcaagag	1260
atgattgcaa	ggatgcaggc	gcagatgcag	atgcagatgc	agggcgggga	tggcgatggc	1320
ggggctctcg	ggcaccacgt	gtaagggtgat	gtgcacatat	caagaagtca	gagaaaaacac	1380
tttcttggat	aaaaaagaaa	acattccaga	tgcatgatcc	agctgtgtgt	tttcaatcct	1440
tgggaggggtg	ccatccacat	tttaacagta	cctgtgcctg	agaatttaaat	ttttaaaga	1500
ctttgatgtg	tttttgtatg	aagtactttt	aacgtatgta	tttcattgct	gtgtcacact	1560
ctgtgttttg	tgaggtgaat	gtcttccttt	tctttctccc	taaccactaa	tgtagaatt	1620
gatttccaag	aatcggcag	tatacttaat	actgaatttc	tttgatttaa	ctgacttaac	1680
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tgtacacaa	acctaaaacc	agttttgtctg	ctataattct	atactgttga	ttcgtctgcg	1920
attttatctg	ttaaccaa	aaaacataat	agaatttctt	aatgagatat	atctttatac	1980
ttaaacagct	tttttagagg	tgagttttta	agaagtctct	taattctgat	gtagggtgt	2040
ttttaaaacc	actatgcaaa	gaactcacca	caagccacct	tttgtagtgt	tctccactaa	2100
tactgggttat	cctgtgctac	agagaaaatc	aaagcagtc	taagctccag	ttttccgtat	2160

tgcaaataag	actcttacct	acaaaatgag	attccagtga	actaatttgg	tttttactca	2220
accaaattaa	aaatTTTTTT	aaggaaaatt	agcagttggg	ctattcagaa	tcaaaccttt	2280
ttatatTTTA	tactgcactt	tagtgtatTT	tctgtcactg	taggtataga	agatctgcct	2340
ccccgtgga	aattgggggtc	tggtgggtggg	cttgccccctg	aagcctgggt	tggggtgaaa	2400
agtgttcccc	ccctaaggcc	ttggtgcccc	gaacctctga	tgcctaccgg	gttctcctga	2460
tttgagtTtc	ctTTaaatac	tccctTTTTg	agtaattTtc	tgatgggagg	aaagtagcag	2520
tcatcatctt	tttgtgtgca	ggctgtctca	tttattTTTT	gccattgtcg	tttcattcat	2580
tttgtgtaat	ataaaccgtg	tgatcatgtc	aagtgaagaa	catttcaa	ctgtagcata	2640
ggctagtggg	cagggtccgca	cagtcgaagc	cacacctggg	ctgttttctg	tgcactgtag	2700
ccttagtggtc	acctttcttc	ttgtgtctcc	ttatggtaca	ctccagcggt	tgcctTTTTt	2760
atcatttcta	ctgaagttgg	gaaattcaac	cccagaaatt	gacagatgaa	aggagacaat	2820
ggttgtgtag	ggagatggag	aaaatgctta	atctgaggat	gagacagggt	tttttcattt	2880
ttgtgggggc	tagaaaaaac	ataaaatgag	gcagttaaat	aataatagtt	aatgaagggtg	2940
tgctacagaa	aataatctgg	tggtcttgct	aactttgccc	ttcactgttg	cttaattgtg	3000
aacagccaaa	agctatatgt	tatggcttat	tgtgtgaagg	taactaagaa	gtgggtgttcc	3060
atgacttcag	agtacatcca	tgcggaagtc	attatttgag	tttgacattt	aataactttg	3120
ctggaaaaatc	tgtaaaaaag	aaaaacaagt	ttgctagtga	ctaagccccg	catatgtgag	3180
tgaaagtact	tcaggcacgc	tgctctctgg	taacagctat	gcaggggagg	aggaccacaca	3240
ctgctacact	tctgatcccc	tttggtttta	ctacccaaat	ctaaatagat	acttttgata	3300
atagataact	gctcttttac	taagacatag	tctctaccta	tagaaatgta	ttttgaaaac	3360
acttattTTta	cacagcaatt	ttgtatccat	ttaaactaac	cttttatcaa	taaagcacta	3420
ttgttttagat	att					3433

<210> 184

<211> 361

<212> PRT

<213> Homo sapiens

<400> 184

Met	Ser	Lys	Gln	Gln	Pro	Thr	Gln	Phe	Ile	Asn	Pro	Glu	Thr	Pro	Gly
1				5					10					15	
Tyr	Val	Gly	Phe	Ala	Asn	Leu	Pro	Asn	Gln	Val	His	Arg	Lys	Ser	Val
			20					25					30		
Lys	Lys	Gly	Phe	Glu	Phe	Thr	Leu	Met	Val	Val	Gly	Glu	Ser	Gly	Leu
		35					40					45			
Gly	Lys	Ser	Thr	Leu	Ile	Asn	Ser	Leu	Phe	Leu	Thr	Asp	Leu	Tyr	Pro
	50					55					60				
Glu	Arg	Val	Ile	Pro	Gly	Ala	Ala	Glu	Lys	Ile	Glu	Arg	Thr	Val	Gln
65				70					75					80	
Ile	Glu	Ala	Ser	Thr	Val	Glu	Ile	Glu	Glu	Arg	Gly	Val	Lys	Leu	Arg
			85					90						95	
Leu	Thr	Val	Val	Asp	Thr	Pro	Gly	Tyr	Gly	Asp	Ala	Ile	Asn	Cys	Arg
		100					105						110		
Asp	Cys	Phe	Lys	Thr	Ile	Ile	Ser	Tyr	Ile	Asp	Glu	Gln	Phe	Glu	Arg
	115					120					125				
Tyr	Leu	His	Asp	Glu	Ser	Gly	Leu	Asn	Arg	Arg	His	Ile	Ile	Asp	Asn
	130					135					140				
Arg	Val	His	Cys	Cys	Phe	Tyr	Phe	Ile	Ser	Pro	Phe	Gly	His	Gly	Leu
145				150					155					160	
Lys	Pro	Leu	Asp	Val	Ala	Phe	Met	Lys	Ala	Ile	His	Asn	Lys	Val	Asn
			165					170						175	
Ile	Val	Pro	Val	Ile	Ala	Lys	Ala	Asp	Thr	Leu	Thr	Leu	Lys	Glu	Arg
		180					185						190		
Glu	Arg	Leu	Lys	Lys	Arg	Ile	Leu	Asp	Glu	Ile	Glu	Glu	His	Asn	Ile
	195					200					205				
Lys	Ile	Tyr	His	Leu	Pro	Asp	Ala	Glu	Ser	Asp	Glu	Asp	Glu	Asp	Phe
	210				215					220					
Lys	Glu	Gln	Thr	Arg	Leu	Lys	Ala	Ser	Ile	Pro	Phe	Ser	Val	Val	
225				230					235					240	
Gly	Ser	Asn	Gln	Leu	Ile	Glu	Ala	Lys	Gly	Lys	Lys	Val	Arg	Gly	Arg
			245					250						255	

Leu Tyr Pro Trp Gly Val Val Glu Val Glu Asn Pro Glu His Asn Asp
 260 265 270
 Phe Leu Lys Leu Arg Thr Met Leu Ile Thr His Met Gln Asp Leu Gln
 275 280 285
 Glu Val Thr Gln Asp Leu His Tyr Glu Asn Phe Arg Ser Glu Arg Leu
 290 295 300
 Lys Arg Gly Gly Arg Lys Val Glu Asn Glu Asp Met Asn Lys Asp Gln
 305 310 315 320
 Ile Leu Leu Glu Lys Glu Ala Glu Leu Arg Arg Met Gln Glu Met Ile
 325 330 335
 Ala Arg Met Gln Ala Gln Met Gln Met Gln Met Gln Gly Gly Asp Gly
 340 345 350
 Asp Gly Gly Ala Leu Gly His His Val
 355 360

<210> 185
 <211> 469
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(469)
 <223> n = g, a, c or t

<400> 185
 caggggggtgc tgaaggccct cgaactacat ccaccacatg ggatatgtac acaggagtgt 60
 caaagccagc cacatcctga tctctgtgga tgggaaggct tacctgtctg gtttgcgagc 120
 caacctcagc atgataagcc atgggcagcg gcagcgagtg gtccacgatt ttcccaagta 180
 cagtgtcaag gnttctgccg tggtcagcc cagaggtcct ccagcagaat ctccagggtt 240
 atgatgccaa gtctgacatc tacagtgtgg gaatcacagc ctgtgaactg gccaacggcc 300
 atgtcccctt taaggatatg cctgccaccc agatgctgct agagaaactg aacggcacag 360
 tgccctgcct gttggatacc agcaccatcc ctgctgagga gctgaccatg agcccttcgc 420
 gctcagtggc caactctggc ctgagtgcac gcctgaccac cagcacccc 469

<210> 186
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 186
 caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc 60
 aaagccagcc acatcctgat ctctgtggat ggggaaggct acctgtctgg tttgcgagc 120
 aacctcagca tgataagcca tgggcagcgg cagcgagtggt tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat 300
 gtccccttta aggatatgcc tgccaccacag atgctgctag agaaactgaa cggcacagtg 360
 ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc 420
 tcagtggcca actctggcct gagtgcacag ctgacc 456

<210> 187
 <211> 461
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(461)
 <223> n = g, a, c or t

```

<400> 187
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
agattccact gtggctcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac      120
gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca gnacaccatg gggcaaggaa ccatggcctg      240
ntggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc ttccaggggc      300
ttcggaagng gggtagtttc tctcattcaa aangagggga gagaaanctg gcatccgggt      360
tgcgctgaag gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cggtggtagg      420
ggtgggaggg cgagtcaccg taggnngggc ggggggtgct g                                     461

```

```

<210> 188
<211> 461
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(461)
<223> n = g, a, c or t

```

```

<400> 188
caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc      60
aaagccagcc acatcctgat ctctgtggat gggaagggtc acctgtctgg ttgcgcgagc      120
aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac      180
agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat      240
gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat      300
gtcccccttta aggatatgcc tgccacccag atgctgctag agaaactgaa cggcacagtg      360
ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc      420
tcagtggcca actctggcct gagtgncagc ctgaccaaca g                                     461

```

```

<210> 189
<211> 350
<212> DNA
<213> Homo sapiens

```

```

<400> 189
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
agattccact gtggctcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac      120
gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc ttccaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg                    350

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<210> 190
<211> 647
<212> DNA
<213> Homo sapiens

```

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<220>
<221> modified_base
<222> (1)...(647)
<223> n = g, a, c or t

```

```

<400> 190
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
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gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc ttccaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg gcatccgggt      360
tgcgctgaag gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cggtggtagg      420

```


ggtgggaggg	cgagtcaccg	tnggagggcc	ggggggtgct	ggtggtcang	ctgtcactca	480
ggccagagtt	ggnactgat	cgcgaanggc	tcatggtcag	ntcctcanca	gggatggtgc	540
tggtatccaa	caggcagggc	actgtgccgt	tcagtttctc	tnagcagcat	ctgggtggca	600
ggcatatcct	taaaggggac	atggccgttg	gccactcaca	ggcctgt		647

<210> 191
 <211> 461
 <212> DNA
 <213> Homo sapiens

<400> 191						
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aacctcagca	tgataagcca	tgggcagcgg	cagcgagtgg	tccacgattt	tcccaagtac	180
agtgtcaagg	ttctgccgtg	gctcagcccc	gaggtcctcc	agcagaatct	ccagggttat	240
gatgccaaagt	ctgacatcta	cagtgtggga	atcacagcct	gtgaactggc	caacggccat	300
gtcccccttta	aggatatgcc	tgccacccag	atgctgctag	agaaactgaa	cggcacagtg	360
ccctgcctgt	tggataccag	caccatccct	gctgaggagc	tgaccatgag	cccttcgcgc	420
tcagtggcca	actctggcct	gagtgcacagc	ctgaccacca	g		461

<210> 192
 <211> 545
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(545)
 <223> n = g, a, c or t

<400> 192						
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gaagcaattc	gggcaaagcc	tctgaggcac	gtcgcttgat	ctgggggaga	agagagaggt	180
gggtgacaga	tcctgtngct	ctgggtccca	ggacaccatg	gggcaaggaa	ccatggcctg	240
gtggcagann	gactgtcata	gccaacncca	tgagaggaag	gagcagtgtc	tttcaggggc	300
ttcggaagcg	gggtagtttc	tctcattcaa	aaggagggga	gagaaagctg	gcattccgggt	360
tgcgctgaag	gcaactgctcc	acaaagtggg	ggaagtgggg	ggagaagggt	cggtaggtagg	420
ggtgggaggg	cgagtcaccg	ttggagggcc	ggggggtgct	ggtggtcagg	ctgtcactca	480
ngccagagtt	ggccactgac	cgcgaagggc	tcatggtcag	ttcctcanca	gggatggtgc	540
tggtta						545

<210> 193
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 193						
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aacctcagca	tgataagcca	tgggcagcgg	cagcgagtgg	tccacgattt	tcccaagtac	180
agtgtcaagg	ttctgccgtg	gctcagcccc	gaggtcctcc	agcagaatct	ccagggttat	240
gatgccaaagt	ctgacatcta	cagtgtggga	atcacagcct	gtgaactggc	caacggccat	300
gtcccccttta	aggatatgcc	tgccacccag	atgctgctag	agaaactgaa	cggcacagtg	360
ccctgcctgt	tggataccag	caccatccct	gctgaggagc	tgaccatgag	cccttcgcgc	420
tcagtggcca	actctggcct	gagtgcacagc	ctgaccacca	gcaccccc		469

<210> 194
 <211> 365
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(365)
 <223> n = g, a, c or t

<400> 194
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 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggncat 300
 gtccccttta aggatatgcc tgccacccat atgctgctag agaaactgaa cggcacagtg 360
 ccctg 365

<210> 195
 <211> 466
 <212> DNA
 <213> Homo sapiens

<400> 195
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 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat 300
 gtccccttta aggatatgcc tgccacccag atgctgctag agaaactgaa cggcacagtg 360
 ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc 420
 tcagtggcca actctggcct gagtgcacagc ctgaccacca gcaccc 466

<210> 196
 <211> 658
 <212> DNA
 <213> Homo sapiens

<400> 196
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 gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt 180
 gggtgacaga tctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg 240
 ttggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc ttccaggggc 300
 ttcgggaagc gggtatgttc tctcattcaa aaggagggga gagaaagctg gcatccgggt 360
 tgcgtgaag cactgtctcc acaaagtggg ggaagtgggg ggagaagggt cgggtggtagg 420
 ggtgggaggg cgagtcaccg ttggagggcc ggggggtgct ggtgggtcagg ctgtcactca 480
 ggccagagtt ggccactgag cgcaaggggc tcatggctag ctctcagca gggatgggtg 540
 tggatatcaa caggcagggc actgtgccgt tcagtttctc tagcagcatc tgggtggcag 600
 gcatatcctt aaaggggaca tggccgttgg ccagttcaca ggctgtgatt cccacact 658

<210> 197
 <211> 466
 <212> DNA
 <213> Homo sapiens

<400> 197
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 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat 300
 gtccccttta aggatatgcc tgccgccag atgctgctag agaaactgaa cggcacagtg 360
 ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc 420
 tcagtggcca actctggcct gagtgcacagc ctgaccacca gcaccc 466

<210> 198
 <211> 418
 <212> DNA
 <213> Homo sapiens

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<400> 198
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
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gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctggggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg gcatccgggt      360
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<210> 199
 <211> 465
 <212> DNA
 <213> Homo sapiens

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<400> 199
caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc      60
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aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac      180
agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat      240
gatgccaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat      300
gtcccccttta aggatatgcc tgccaccagc atgctgctag agaaactgaa cggcacagtg      360
ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc      420
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```

<210> 200
 <211> 573
 <212> DNA
 <213> Homo sapiens

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<400> 200
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gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctggggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg gcatccgggt      360
tgcgctgaag gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cggtggtagg      420
ggtgggaggg cgagtcaccg ttggagggcc ggggggtgct ggtggtcagg ctgtcactca      480
ggccagagtt ggccactgag cgcgaagggc tcatggtcag ctctcagca gggatggtgc      540
tggtatccaa caggcagggc actgtgccgt tca              573

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<210> 201
 <211> 169
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(169)
 <223> n = g, a, c or t

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<400> 201
caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc      60
aaanccagnc acatcctgat ctctgtggat ggggaaggctt acctgtctgg tttgcgcagc      120
aacctcagca tgataagcca tgggcagcgg cagcnagtgg tccangann              169

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<210> 202
 <211> 2143
 <212> DNA
 <213> Homo sapiens

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<400> 202
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caggaacagg ttttaagtttt tgaaactgaa gtaggcctac acagtaggaa ctcatgtcat      120
ttcttgtaag taaaccagag cgaatcaggc ggtgggtctc ggaaaagttc attgttgagg      180
gcttaagaga tttggaacta tttggagagc agcctccggg tgacactcgg agaaaaacca      240
atgatgcgag ctccagagtca atagcatcct tctctaaaca ggaggtcag agtagctttc      300
tgccagaggg aggggtgttac gagctgctca ctgtgatagg caaaggattt gaggacctga      360
tgactgtgaa tctagcaagg taciaaacaa caggagagta cgtgactgta cggaggatta      420
acctagaagc ttgttccaat gagatggtaa cattcttgca gggcgagctg catgtctcca      480
aactcttcaa ccattccaat atcgtgccat atcgagccac ttttattgca gacaatgagc      540
tgtgggttgt cacatcattc atggcatacg gttctgcaaa agatctcatc tgtacacact      600
tcatggatgg catgaatgag ctggcgattg cttacatcct gcaggggggtg ctgaaggccc      660
tcgactacat ccaccacatg ggatatgtac acaggagtgt caaagccagc cacatcctga      720
tctctgtgga tgggaaggtc tacctgtctg gtttgcgag caacctcagc atgataagcc      780
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ggctcagccc cgaggtcctc cagcagaatc tccagggtta tgatgccaa agtctgacatct      900
acagtgtggg aatcacagcc tgtgaactgg ccaacggcca tgtccccctt aaggatatgc      960
ctgccaccca gatgctgcta gagaaactga acggcacagt gccctgcctg ttggatacca     1020
gcaccatccc cgctgaggag ctgaccatga gcccttcgag ctcagtggcc aactctggcc     1080
tgagtgcacg cctgaccacc agcacccccc ggccctccaa cggtgactcg ccctcccacc     1140
cctaccaccg aaccttctcc cccacttcc accactttgt ggagcagtg cttcagcgca     1200
accgggatgc caggcccagt gccagcacc tctgaacca ctctttcttc aagcagatca     1260
agcgacgtgc ctccagaggc ttgcccgaat tgcttcgtcc tgcaccccc atcaccaatt     1320
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agctggagggt ggacgattgg gagttctgag cctctgcaaa ctgtgcgcat tctccagcca     1440
gggatgcaga ggccacccag aggccttccc tgaggggcgg ccacattccc gccctcctgg     1500
gcagattggg tagaaaggac attcttccag gaaagttgac tgctgactga ttgggaaaga     1560
aaatcctgga gagacacttc actgctccaa ggcttttgag acacaaggga atctcaacaa     1620
ccagggatca ggagggtcca aagccgacat tcccagtcct gtgagctcag gtgacctcct     1680
ccgcagaaga gagatgctgc tctggccctg ggagctgaat tccaagccca gggtttggtt     1740
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ctttgctctc agatgcctca gatgctatag gtcagtgaag gggcaagtag taagctgcct     1860
gcctccccct cctcagacct ctccctcata attccagaga agggcatttc tgtcttttta     1920
agcacagact aaggctggaa cagtccatcc ttatccctct tctggcttgg gccctgacac     1980
ctaagtcttt cccacgggtt atgtgtgtgc ctcatcctt tcccaccaag aatccatctt     2040
agcgccctct gccagctgcc ctggtgcttt ctccaagggc catcagtgtc ttgcctagct     2100
tgagggctta agtccttatg ctgtgttagt ttcgttgtca gaa                      2143

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<210> 203
 <211> 431
 <212> PRT
 <213> Homo sapiens

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<400> 203
Met Ser Phe Leu Val Ser Lys Pro Glu Arg Ile Arg Arg Trp Val Ser
 1          5          10          15
Glu Lys Phe Ile Val Glu Gly Leu Arg Asp Leu Glu Leu Phe Gly Glu
          20          25          30
Gln Pro Pro Gly Asp Thr Arg Arg Lys Thr Asn Asp Ala Ser Ser Glu
          35          40          45
Ser Ile Ala Ser Phe Ser Lys Gln Glu Val Met Ser Ser Phe Leu Pro
          50          55          60
Glu Gly Gly Cys Tyr Glu Leu Leu Thr Val Ile Gly Lys Gly Phe Glu
          65          70          75          80
Asp Leu Met Thr Val Asn Leu Ala Arg Tyr Lys Pro Thr Gly Glu Tyr
          85          90          95

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Val	Thr	Val	Arg	Arg	Ile	Asn	Leu	Glu	Ala	Cys	Ser	Asn	Glu	Met	Val
			100					105					110		
Thr	Phe	Leu	Gln	Gly	Glu	Leu	His	Val	Ser	Lys	Leu	Phe	Asn	His	Pro
		115					120					125			
Asn	Ile	Val	Pro	Tyr	Arg	Ala	Thr	Phe	Ile	Ala	Asp	Asn	Glu	Leu	Trp
	130					135					140				
Val	Val	Thr	Ser	Phe	Met	Ala	Tyr	Gly	Ser	Ala	Lys	Asp	Leu	Ile	Cys
145					150					155				160	
Thr	His	Phe	Met	Asp	Gly	Met	Asn	Glu	Leu	Ala	Ile	Ala	Tyr	Ile	Leu
			165					170					175		
Gln	Gly	Val	Leu	Lys	Ala	Leu	Asp	Tyr	Ile	His	His	Met	Gly	Tyr	Val
		180					185						190		
His	Arg	Ser	Val	Lys	Ala	Ser	His	Ile	Leu	Ile	Ser	Val	Asp	Gly	Lys
	195						200				205				
Val	Tyr	Leu	Ser	Gly	Leu	Arg	Ser	Asn	Leu	Ser	Met	Ile	Ser	His	Gly
	210					215					220				
Gln	Arg	Gln	Arg	Val	Val	His	Asp	Phe	Pro	Lys	Tyr	Ser	Val	Lys	Val
225					230					235				240	
Leu	Pro	Trp	Leu	Ser	Pro	Glu	Val	Leu	Gln	Gln	Asn	Leu	Gln	Gly	Tyr
			245					250						255	
Asp	Ala	Lys	Ser	Asp	Ile	Tyr	Ser	Val	Gly	Ile	Thr	Ala	Cys	Glu	Leu
			260					265					270		
Ala	Asn	Gly	His	Val	Pro	Phe	Lys	Asp	Met	Pro	Ala	Thr	Gln	Met	Leu
	275						280					285			
Leu	Glu	Lys	Leu	Asn	Gly	Thr	Val	Pro	Cys	Leu	Leu	Asp	Thr	Ser	Thr
	290				295						300				
Ile	Pro	Ala	Glu	Glu	Leu	Thr	Met	Ser	Pro	Ser	Arg	Ser	Val	Ala	Asn
305					310					315				320	
Ser	Gly	Leu	Ser	Asp	Ser	Leu	Thr	Thr	Ser	Thr	Pro	Arg	Pro	Ser	Asn
			325					330					335		
Gly	Asp	Ser	Pro	Ser	His	Pro	Tyr	His	Arg	Thr	Phe	Ser	Pro	His	Phe
		340					345						350		
His	His	Phe	Val	Glu	Gln	Cys	Leu	Gln	Arg	Asn	Pro	Asp	Ala	Arg	Pro
	355						360					365			
Ser	Ala	Ser	Thr	Leu	Leu	Asn	His	Ser	Phe	Phe	Lys	Gln	Ile	Lys	Arg
	370					375					380				
Arg	Ala	Ser	Glu	Ala	Leu	Pro	Glu	Leu	Leu	Arg	Pro	Val	Thr	Pro	Ile
385					390					395				400	
Thr	Asn	Phe	Glu	Gly	Ser	Gln	Ser	Gln	Asp	His	Ser	Gly	Ile	Phe	Gly
			405					410					415		
Leu	Val	Thr	Asn	Leu	Glu	Glu	Leu	Glu	Val	Asp	Asp	Trp	Glu	Phe	
			420					425					430		

<210> 204

<211> 760

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(760)

<223> n = g, a, c or t

<400> 204

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aagctggctc	ccagctacca	cctgttactt	tgacaactct	agcttcaggg	ctaccaggac	120
catttgcaaa	acttacaccc	acagaaaact	caaagtctcc	agaggcataa	gctccaatcc	180
cccagagagc	tcgcactagc	attcttctcc	ctttctagta	gtacttttat	gggggggagt	240
tattcttccc	cacaaaagtg	agcggcgaca	ataaaaacaa	tgtttcccac	aaagagtttt	300
ccccggttct	tctcccaaaa	atttnggggg	ggcccccggt	tncccccg	gcgacggggg	360
cgggngggcc	cgccccccaa	aaccacaang	gnggtgtgtt	ccctctgaaa	gctcnnacaa	420

agaggggtga	ccccccccg	ttttgggtga	tgaataccgc	ccgaagatag	gncgcccga	480
aaagagccaa	cccnngaaaa	gagagatfff	tatatagagg	aagcaaaaaac	gaaanganag	540
cggttttttt	ttttttgtcc	ngccaacaac	atggggggcc	cccgttttat	aaatagagtt	600
ttttgttttt	taaacaatcg	actttttttt	tccccccgtg	tatttaaaaa	agaaggaagg	660
gtattttata	ttnttggggg	ngcgtgtatt	atataaatta	tttagtgggg	tgcggggang	720
gaaagagnga	agctgtttat	cccatcaaaa	tattattgtg			760

<210> 205
 <211> 404
 <212> DNA
 <213> Homo sapiens

<400> 205						
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agctggctcc	cagctaccac	ctgttactff	gacaactcta	gcttcagggc	taccaggacc	120
atttgcaaaa	cttacaccca	cagaaaaactc	aaagtctcca	gaggcataag	ctccaacccc	180
cagagagctc	cacagcattc	ttctctctct	agtagtaact	ttggtttcca	ggaaaatcat	240
ctcatgctcg	ggccacagtc	acagtcctga	ccagcaccat	agaaatttca	gccattattc	300
tagttgtatg	gagtcattca	aaatactagt	tccgaaagaa	gtttcaaagg	tccaacgccg	360
agcatctttt	acctttgcta	atftttccat	aaattgaaag	cctt		404

<210> 206
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 206						
atctacatga	ggtcctgtag	attgagcaac	tttggctatt	tgggtagctg	atccactgcc	60
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accatttgca	aaacttacac	ccacagaaaa	ctcaaagtct	ccagaggcat	aagctccaac	180
ccccagagag	ctccacagca	ttcttctcct	tctagtagta	cttttggttt	ccaggaaaat	240
catctcatgc	tcgggccaca	gtcacagtcc	tgaccagcac	catagaaatt	tcagccatta	300
ttctagttgt	atggagtcac	tcaaaatact	agttccgaaa	gaagtttcaa	aggtccaacg	360
ccgagcattc	tttttacctt	tgctaatttt	tc			392

<210> 207
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 207						
atctacatga	ggtcctgtag	attgagcaac	tttggctatt	tgggtagctg	atccactgcc	60
aagctggctc	ccagctacca	cctgttactt	tgacaactct	agcttcaggg	ctaccaggac	120
catttgcaaa	acttacaccc	acagaaaaact	caaagtctcc	agaggcataa	gctccaaccc	180
ccagagagct	ccacagcatt	cttctccttc	tagtagtact	tttggtttcc	aggaaaatca	240
tctcatgctc	gggccacagt	cacagtctctg	accagcacca	tagaaatttc	agccatt	297

<210> 208
 <211> 406
 <212> DNA
 <213> Homo sapiens

<400> 208						
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aagctggctc	ccagctacca	cctgttactt	tgacaactct	agcttcaggg	gctaccagga	120
ccatttgcaa	aacttacacc	cacagaaaaac	tcaaagtctc	cagaggcata	agctccaacc	180
cccagagagc	tccacagcat	tcttctcctt	ctagtagtac	ttttggtttc	caggaaaatc	240
atctcatgct	cgggccacag	tcacagtcc	gaccagcacc	atagaaattt	cagccattat	300
tctagttgta	tggagtcatt	caaaatacta	gttccgaaag	aagtttcaaa	ggtccaacgc	360
cgagcatctt	ttacctttgc	taatttttcc	ataaattgaa	agcctt		406

<210> 209
 <211> 434
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(434)
 <223> n = g, a, c or t

<400> 209
 aatctacatg aggtcctgta gattgagcaa ctttggtat ttgggtagct gatccactgc 60
 caagctggct cccagctacc acctgttact ttgacaactc tagcttcagg ctacaggaca 120
 ttgcaaaac ttacaccac agaaaactca aagtctccag aagcataagc tccaaacccc 180
 aganagctcc aagattcttc tccttctagt agtacttttg gtttccagga aaatcatctc 240
 atgctcgggc cacagtcaca gtcctgacca gcaccataga aatttcagca ttattctagt 300
 tgtatgtgag tccttccaaa tactagtctc gaaagaagtt tccaaggtcc aacgccgagc 360
 atcttttacn ttggttaattt ttccctaaat tgaaagcctt ccgcagaaac cagcacagtg 420
 gttagataga taaa 434

<210> 210
 <211> 405
 <212> DNA
 <213> Homo sapiens

<400> 210
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 aagctggctc ccagctacca cctgttactt tgacaactct agcttcaggg ctaccaggac 120
 catttgcaaa acttacaccc acagaaaact caaagtctcc agaggcataa gctccaaccc 180
 ccagagagct ccacagcatt cttctccttc tagtagtact tttggtttcc aggaaaatca 240
 tctcatgctc gggccacagt cacagtcctg accagcacca tagaaatttc agccattatt 300
 ctagttgtat ggagtcattc aaaatactag ttccgaaaga agtttcaaag gtccaacgcc 360
 gagcatcttt tacctttgct aatttttcca taaattgaaa gcctt 405

<210> 211
 <211> 1028
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(1028)
 <223> n = g, a, c or t

<400> 211
 gcgtcgctcg gcgttagcca aggcccgggc ggcgccaccc tccggggggca ctaggtctg 60
 ggccgcagtg cccccccata ggcacacacg agngaaagcg ccaatggggc tgggtttttt 120
 ttaaatttcc cgggcggggc gnaaccccgg aacacaacgg gcaaacttgt acaatttttg 180
 tggggancaa caaccgggac acaanttttt ggggnaatgg cgccacaaaa aaanaaaacca 240
 acgacgcgac gaaagcgcgt ggtgtttgtg cngaatactt tttataaaac caccaaattg 300
 gcgcctctcg cttgtgccgc ccccttctcc ccaaangggg ggccggcgctg ttttttcccc 360
 aacacgggcg tggggcccaa aaaaaattgt gggcgcccaa agaaaaaata ttttaataaa 420
 acagaggcgg cccccacaa cacaggcggg tntgggggaa caggaaacca acacaacgac 480
 aacacggcgc tggcggcaac aagcaaacac gggagcaaac aaaacacggg cggaagaaa 540
 ccacacgggc gaaacgactt ttataacaaa cacttttgtt ggggcgcaaa cagcacacac 600
 acaacaaaaa tgggcgcccc ccccnccga gggggccac aaaggncgaa gagaaaaaac 660
 ccccccccc caaaaagaga gcgcccgcaa aacaaccacc aaaaaaaggg gaggagtgtg 720
 gagagcaggg cgagangttt ttttatatta aaacacgggc nacgaaaaca tcattttata 780
 aatagggcag gcaaaaaaca cgatttataa tatttcaaca gaaaacaggg ntggcctctg 840
 ggggttttgt gtgtgtgctt cccnaccggg ggtgcgcgtg tttttcctcc tggtgnggaa 900
 aaaagacacc tgttttataa aagaggagng tatnccncc tttttgtggg tgcgaaaaac 960

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agacgngagg cgggangatn tatcccactc ttttggtggt gcaacaagtg ttttatatag 1020
nataacctg 1028

<210> 212
<211> 236
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(236)
<223> n = g, a, c or t

<400> 212
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gggccgcagt gccagncac agagcagcgt ttatctggga cgaagatgaa tggaaagaat 120
tggaagcaaaa agaggttgat tacagcgggc tcanggggtc aggcgaatgc aaataagcac 180
gtgaaaagga agaagacgat aatgaaaagc cgcagaaacc agcacagtgg ttagat 236

<210> 213
<211> 315
<212> DNA
<213> Homo sapiens

<400> 213
caagccggtg cagcggttgt cagtgtgctg ggtctgcggg cgttgcttcg gcgttagcca 60
agccggggcg cgcaccctc cggggggggg gccactaggt ctggggccgc agtgcccagc 120
acagagcagc ggtttatcgg gacgaagaat gaattggaaa gaattggagc aaaaagaggt 180
tgataacagc ggcctcaggg gttcaggcaa tgcaaataag cagtgaaaag gaagaagacg 240
ataatgaaaa gccgcagaaa ccagcacagt ggtagatag ataaagcggg cgctcgacta 300
gtctgaggtc tgata 315

<210> 214
<211> 193
<212> DNA
<213> Homo sapiens

<400> 214
gcgtgctcgg cgtagccaa tgcccgggcg gcgccacctc cggggggcact aggtcttggg 60
gccgcagtgc ccagcacaga gcagcgttta tcgggacgaa gatgaatgga aagaattgga 120
gcaaaaagag gttgattaca gctggcctca gggggttcag gcaatgcaaa taagcagtga 180
aaaggaagaa gac 193

<210> 215
<211> 203
<212> DNA
<213> Homo sapiens

<400> 215
gcgtcgtcgc gcgtagcca agggcccggg ggcgccaccc tccgggggca ctaggtctgg 60
ggccgcagtg ccagcacag agcagcgttt atcgggacga agatgaatgg aaagaattgg 120
agcaaaaaga ggttgattac agcggtcag ggggttcaggc aatgcaaata agcagtgaaa 180
aggaagaaga cgataatgaa aag 203

<210> 216
<211> 204
<212> DNA
<213> Homo sapiens

<400> 216
gcgtcgtcgc gcgtagcca agggcccggg ggcgccaccc tccgggggca ctaggtctgg 60

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ggccgcagtg	cccagcacag	agcagcggtt	atcggggacga	agatgaatgg	aaagaattgg	120
agcaaaaaaga	ggttgattac	agcgggcctca	gggggttcagg	caatgcaa	aagcagtga	180
aaggaagaag	acgataatga	aaag				204

<210> 217
 <211> 203
 <212> DNA
 <213> Homo sapiens

<400> 217						
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gctgtaataca	acctcttttt	gctccaattc	tttccattca	tcttcgtccc	gataaacgct	120
gctctgtgct	gggcactgcg	gccccagacc	tagtgccccc	ggagggtggc	gccgcccggg	180
cctcggctaa	cgccgagcga	cgc				203

<210> 218
 <211> 204
 <212> DNA
 <213> Homo sapiens

<400> 218						
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ggccgcagtg	cccagcacag	agcagcggtt	atcggggacga	agatgaatgg	aaagaattgg	120
agcaaaaaaga	ggttgattac	agcgggcctca	gggggttcagg	caatgcaa	aagcagtga	180
aaggaagaag	acgataatga	aaag				204

<210> 219
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 219						
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aaggaaaagaa	aaaccacctc	ccaccagggt	aaataaataa	ttaacatttt	ggtatgtacc	120
cttccagaca	ttttcctatg	catcacatca	ataaatatat	gataggatat	tttacatttg	180
atgtatcctg	aagattaatt	caacaaatgt	ttagtgagta	ggcttggttg	aggtgctggg	240
aattcagcag	tgaacaaaac	aaagtctctg	cctcatggag	ctcatattat	agtaggggaag	300
actgtcaata	agcaatatac	acattgacta	aatgatagat	aatgcccagt	aatgtggcaa	360
gttttatgga	aaaataaatc	aggataaaaag	gataagagtg	atatggggat	tctcttagtt	420
agggtagata	aggaaggcct	cttagctaag	gaggcacata	aatatctgat	catctaata	480
gagaaggagc	aacatgggat	ttctagaggg	aaactatcct	agaaaaga		527

<210> 220
 <211> 645
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(645)
 <223> n = g, a, c or t

<400> 220						
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tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatcccat	atcactctta	tccttttata	ctgatttatt	tttccataaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataatatga	gtcccatgag	gcagagactt	tgttttgttc	actgctgaat	tcccagcacc	300
tacaacaagc	ctactcacta	aacatttggt	gaattaatct	tcaggatata	tcaaatgtaa	360
aaatatccta	tcatatattt	attgatgtga	tgcataggaa	aatgtctgga	agggtacata	420
ccaaaatggt	aattatttat	ttaacctggg	gggagggtgga	ttatttcttt	ccttttcttt	480

ctttttgaga	ccagagtttc	cgcattcttcg	ttgccccagg	ctggggagtgg	aaattgggca	540
aagcccgag	aaaccccaag	caacaagtgg	gttttagatag	natcaaagcg	ggccgctcga	600
cttaantcct	tgaaggctcg	attactcaac	ctgacttgctc	agaaa		645

<210> 221
 <211> 613
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(613)
 <223> n = g, a, c or t

<400> 221						
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aaggaaaagaa	aaaccacctc	ccaccagggt	aaataaataa	ttaacatttt	ggtatgtacc	120
cttccagaca	ttttcctatg	catcacatca	ataaatatat	gataggatat	tttacatttg	180
atgtatcctg	aagattaatt	caacaaatgt	ttagtgagta	ggcttggtgt	aangtgctgg	240
gaattcagca	gtgaacaaaa	caaagtctct	gcctcatgga	gctcatatta	tagtagggaa	300
gactgtcaat	aagcaatata	cacattacta	aatgatagat	aatgccagc	aatgtggcaa	360
gttttatgga	aaaattaatc	aggataaaag	ataagagtga	tatggggatt	ctcttaatta	420
gggtagatna	ggaagggtc	tttagctnaa	ggaagcaaca	taaatatctg	atcattttta	480
aangggaaag	aacgaaaaag	gggaaagcca	aaacacaaat	ggggggacaat	ttatacctta	540
cgaaaagggg	gaaaaaacca	taaaatcccc	taaggaaaca	naaaagcaaa	agcncaaaga	600
ccagcaaaaa	caa					613

<210> 222
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 222						
cttgccattc	cactccagcc	tgggcaacga	gagcgaaact	ctgtctcaaa	aagaaaagaa	60
aaggaaaagaa	aaaccacctc	ccaccagggt	aaataaataa	ttaacatttt	ggtatgtacc	120
cttccagaca	ttttcctatg	catcacatca	ataaatatat	gataggatat	tttacatttg	180
atgtatcctg	aagattaatt	caacaaatgt	ttagtgagta	ggcttggtgt	aggtgctggg	240
aattcagcag	tgaacaaaac	aaagtctctg	cctcatggag	ctcatattat	agtagggaag	300
actgtcaata	agcaatatac	acattactaa	atgatagata	atgccagta	atgtggcaag	360
tttatatgga	aaaataaatt	aggataaaaag	gataagagtg	atatggggat	tctct	415

<210> 223
 <211> 713
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(713)
 <223> n = g, a, c or t

<400> 223						
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tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatcccat	atcactctta	tccttttata	ctgatttatt	tttcataaaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataatatga	gtcccatgag	gcagagactt	tgttttgttc	actgctgaat	tcccagcacc	300
tacaacaagc	ctactcacta	aacatttggt	gaattaatct	tcaggatata	tcaaagttaa	360
aatatcctat	catatatatta	ttgatgtgat	gcataaggaaa	atgtctggaa	gggtacatac	420
caaaatgtta	attattttat	taacctgggtg	ggagggtggt	tttctttcct	tttcttttct	480
ttttgagaca	gagtttacgc	tctcgtgtgc	ccaggcctgg	agtggaaatgg	caagccgcag	540

aanccagcac	agtgggttang	atnaattaaa	gcgggcnagt	ccaataagtc	tgaaggctga	600
aacacacaca	cagagacggt	cacaaagggc	gaaatncggc	aaaatnccat	cccactgggg	660
gccgcacac	aaaatgnatn	gagaagggga	ccaaatggcc	aaagangagc	gat	713

<210> 224
 <211> 462
 <212> DNA
 <213> Homo sapiens

<400> 224						
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tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatcccat	atcactctta	tccttttata	ctgatttatt	tttccataaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataattatg	agctccatga	ggcagagact	ttgttttggt	cactgctgaa	ttcccagcac	300
ctacaacaag	cctactcact	aaacatttgt	tgaattaatc	ttcaggatac	atcaaagtga	360
aaatatccta	tcatatattt	attgatgtga	tgcataaggaa	aatgtctgga	agggtacata	420
ccaaaatggt	aattatttat	ttaacctggt	gggaggtggt	aa		462

<210> 225
 <211> 599
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(599)
 <223> n = g, a, c or t

<400> 225						
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tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatcccat	atcactctta	tccttttata	ctgatttatt	tttccataaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataatatga	gctccatgag	gcagagactt	tgttttgttc	actgctgaat	tcccagcacc	300
tacaacaagc	ctactcacta	aacatttgtt	gaattaatct	tcaggataca	tcaaagttaa	360
aatatcctat	catatattta	ttgatgtgat	gcataaggaaa	atgtctggaa	gggtacatac	420
caaaatgtta	attattttatt	taacctgggtg	ggaggtgggt	tttctttcct	tttcttttct	480
tattgagaca	gagtttcgct	ctcggttgccc	cggctggaag	tgggaatggca	agccggcagg	540
aaccaagac	aacaaggagg	ttaagatcag	aataaaagac	ggggaccgca	tccagaaac	599

<210> 226
 <211> 537
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(537)
 <223> n = g, a, c or t

<400> 226						
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aaaggaaaga	aaaaccacct	cccaccaggg	ttaaataaat	aattaacatt	ttgggtatgta	120
cccttccagg	acatttttct	atgcatacaca	tcaataaata	tatgatagga	tattttacat	180
ttgatgtatc	ctgaagatta	attcaacaaa	tgtttagtga	gtaggcntgt	tagtaggtgc	240
tgggaattca	gcagtgaaca	aaacaaagtc	tctgcctcat	ggagctcata	ttatagtagg	300
gaagactgtc	aataagcaat	atacacatta	ctaaatgata	gataatgcc	agtaatgtgg	360
caagttttat	ggaaaaatna	atcaggataa	aaggataaga	gtgatatggg	gattctnctt	420
agattagggt	agataaagga	angcctctta	gnctnaagag	gccacataaa	caaaatcaat	480
tccttgggaa	aatccaanct	gnctaaacgt	agacaggggac	aagcaanagg	cggacgg	537

<210> 227
 <211> 531
 <212> DNA
 <213> Homo sapiens

<400> 227
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 tgatcagata tttatgtgcc tccttagcta agaggccttc cttatctacc ctaactaaga 120
 gaatcccat atcactctta tccttttata ctgatttatt ttccataaa acttgccaca 180
 ttactgggca ttatctatca tttagtaatg tgtatattgc ttattgacag tcttccttac 240
 tataatatga gtcctcatgag gcagagactt tgttttgttc actgctgaat tcccagcacc 300
 tacaacaagc ctactcacta aacatttggt gaattaatct tcaggatata tcaaagttaa 360
 aatatcctat catatattta ttgatgtgat gcataggaaa atgtctggaa gggtagatac 420
 caaaatgtta attatttatt taacctgggt ggaggtgggt tttctttcct tttcttttct 480
 ttttgagaca gagtttcgct ctcgttgccc aggctggagt ggaatggcaa g 531

<210> 228
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 228
 gcttgcaaag gagaggctgt gactaccaag gtcgtgtcaa caactgaatg gctgaaatac 60
 ccaaacttgc ccatgcaaat gggcttgggt ctctcctggc agccgccttt gaaggctcta 120
 gacttatctg tgaactcctt ttttgagagg gtctttccaa ctagtgggtt attctttgac 180
 tctcctcata ccttttttgc cagagagtga gagtgagaag ggagggctaa tgctgagct 240
 cctgcccttt ctatgcagtg agggcacaaga tcctcagcta gtgtttgagg gaactgggtg 300
 aacctgggtc tctcattttc taccatccaa gttgcc 336

<210> 229
 <211> 336
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(336)
 <223> n = g, a, c or t

<400> 229
 ggcaacttgg atggtagaaa atgagagacc caggttacac caggttccct caaacactag 60
 ctgaggatct tgaccctcac tgcntagaaa gggcaggagc tcaggcatta gccctccctt 120
 ctactctca ctctctggca aaaaaggatg gaggagagtc aaagaataaa ccactagtgtg 180
 gaaagaccct ctcaaaaaag gagttcacag ataagtctag agccttcaaa ggcggctgcc 240
 aggagagacc caagcccatt tgcattggga agtttgggtt tttcagccat tcagttgttg 300
 acacgacttg gtagtcacag cctctccttt gcaagc 336

<210> 230
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 230
 gcttgcaaag gagaggctgt gactaccaag tcgtgtcaac aactgaatgg ctgaaatacc 60
 caaacttgcc catgcaaatg ggcttgggtc tctcctggca gccgcctttg aaggctctag 120
 acttatctgt gaactccttt tttgagaggg tctttccaa tagtggttta ttctttgact 180
 ctctcctac ctttttttgc agagagttag agtgagaagg gagggctaag gctgagctc 240
 ctgccctttc tatgcagtga gggcacaagt cctcagctag tgtttgaggg aactgggtga 300
 gcctgggtct ctcattttct accatccaa gttgcc 335

<210> 231
 <211> 249
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(249)
 <223> n = g, a, c or t

<400> 231							
ggcaacttgg	atggtagaaa	atgagagacc	caggctacac	cagnttcct	caaacactag		60
ctgaggatct	tgaccctcac	tgcataaaaa	gggcaggagc	tcaggcatta	gccctccctt		120
ctcactctca	ctctctggca	aaaaaggtat	gaggagagtc	aaanaataaa	ccactanttg		180
ganagaccct	ctcaanaaag	gagttcacag	ataantntat	agccttcaaa	ggcggctgcc		240
aggagagac							249

<210> 232
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 232							
gcttgcaaag	gagaggctgt	gactaccaag	tcgtgtcaac	aactgaatgg	ctgaaatacc		60
caaacttgcc	catgcaaagt	ggcttgggtc	tctcctggca	gccgcctttg	aaggctctag		120
acttatctgt	gaactccttt	tttgagaggg	tctttccaac	tagtggttta	ttctttgact		180
ctcctcatac	cttttttgcc	agagagttag	agtgagaagg	gagggctaag	gcctgagctc		240
ctgccctttc	tatgcagtga	gggtcaagat	cctcagctag	tgtttgaggg	aactggtgta		300
acctgggtct	ctcattttct	accatccaag	ttgcc				335

<210> 233
 <211> 778
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(778)
 <223> n = g, a, c or t

<400> 233							
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gaggtccgag	tcgggttggg	tggtgtgtgc	cgctgccatg	tttgtgtggt	gcctggcccc		120
gtggtcccat	gttctggcag	cttctggctc	cagcctcagc	ctgtagtggg	gtgttacgtg		180
gtagnagagt	cggtagctgg	gggcctgcag	tggtgttagg	cagtggtagg	agtgacagnta		240
gcatagaagt	tanaaaggtt	actagtagag	actggtccca	tacttagaga	tggtgacacca		300
tgacctgatg	gntacnacc	tgacaggccg	cagaaaccag	acacactgga	gccaccgact		360
gacacaacgg	gccttgggna	cggacgtcca	atngcgtatg	antaccanga	cagtcaggan		420
ccccaaatga	cccgaagca	ggaaacgggg	cagaaaaaan	caatagccaa	ggaatagtca		480
canggtcgac	anaacctgng	cagggaccag	naaaccagaa	ngaccaatgc	acantacata		540
agaagggggg	gggcacncca	caaaagatat	gccgggagac	gccagataag	ataagggact		600
aggggaaggag	tccgggnaaa	natgtaacga	aagagtatcg	aaccaatgga	gggncgccgg		660
gtacccgngc	gnaaggacaa	acaanaagca	ggcatccgga	ctgggaacca	atggggggga		720
aagaagcagc	gcccccatgg	gganagggat	gtaaanccac	aacaacacgt	gtnaaacg		778

<210> 234
 <211> 659
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(659)
 <223> n = g, a, c or t

<400> 234
 aattgaantt acactcacta tagggcgaat tgggcctcta gatgcatgct cgagcggccg 60
 ccagtgtgat ggaatatctg cagaattcgc ctttctctcg gcatggacga gctgtacaag 120
 gaggaggccg caaggccggt ggcagcgggt gctccaagtg gtggccttg ggttcttg 180
 ggctgcaggg agaccacagg caggtgcccc cctaagaggg acagccacag aaaccctcta 240
 acctcagcac tgcactccac cacgaacacc ccacgcaggc cctcaggcaa cccggcaacc 300
 ttccaaacca acggaacacc ccacacaggc tgaggctgga gccagaagcc gccagaacat 360
 gggaccacag ggccaggcac cacacaaaca tggcgacgga cacagccaat ccaaaccccc 420
 ggaaaaaccg atttcncnng nggggggaaa accgccccag tttccaccc cgggagagcg 480
 ccccaaaagg gggggggnac acccaccac ncaccccaaa ggggncgcag gggccaaaca 540
 gcagaaancc ccgaanttcc cttgcggggg gaattcgccg cgcccaaagg ggaacnagca 600
 aggaaggcca ttgccggttg ccgggccccaa gcaccgcccag gaacagcgcg caaggcgac 659

<210> 235
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 235
 ctgcagggag accacaggca ggtgcccacc taagagggac agccacagaa accctctaac 60
 ctcagcactg cactccacca cgaccacccc acgcaggccc tcagcaccgc actccaccac 120
 gaacacccca cacaggctga ggctggagcc agaagctgcc agaacatggg accacagggc 180
 caggcaccac acaaacatgg cgacggacac agccatccaa cccgactcgg acctccgcca 240
 ggcccccagc gcacaacccat ctgggatccc caggaaaaga gctgcgtgcg gccag 295

<210> 236
 <211> 296
 <212> DNA
 <213> Homo sapiens

<400> 236
 gctggccgca cgcagctctt ttcttgggga tcccagatgg ttgtgcgctg ggggcctggc 60
 ggaggtccga gtccgggttg atggctgtgt ccgtcgccat gtttgtgtgg tgcctggccc 120
 tgtgttccca tgttctggca gcttctggtt ccagcctcag cctgtgtggg gtgttcgtgg 180
 tggagtgcgg tgctgagggc ctgctgtggg tggctgtggt ggagtgcagt gctgaggtta 240
 gagggtttct gtggctgtcc ctcttaggtg ggcacctgcc tgtggtctcc ctgcag 296

<210> 237
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 237
 ctgcagggag accacaggca ggtgcccacc taagagggac agccacagaa accctctaac 60
 ctcagcactg cactccacca cgaccacccc acgcaggccc tcagcaccgc actccaccac 120
 gaacacccca cacaggctga ggctggagcc agaagctgcc agaacatggg accacagggc 180
 caggcaccac acaaacatgg cgacggacac agccatccaa cccgactcgg acctccgcca 240
 ggcccccagc gcacaacccat ctgggatccc caggaaaaga gctgcgtgcg gccag 295

<210> 238
 <211> 327
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(327)
 <223> n = g, a, c or t

<400> 238
 ctggccgcac gcagctcttt tcctggggat cccagatggt tgtgcgctgg gggcctggcg 60
 gaggtccgag tcgggttgga tggctgtgtc cgtcgccatg tttgtgtggt gcctggccct 120
 gtgggtcccat gttctggcag cttctggctc cagcctcagc ctgtgtgggg tgttcgtggt 180
 ggagtgcggt gctgagggcc tgcgtggggt ggtcgtggtg gagtgcagtg ctgagggtan 240
 agggtttctg tggctgtccc tcttaggtgg gcacctgcct gtggtctccc tgcagccgca 300
 aaacccanca cactggagcc accgctg 327

<210> 239
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 239
 ctggccgcac gcagctcttt tcctggggat cccagatggt tgtgcgctgg gggcctggcg 60
 gaggtccgag tcgggttgga tggctgtgtc cgtcgccatg tttgtgtggt gcctggccct 120
 gtgggtcccat gttctggcgg cttctggctc cagcctcagc ctgtgtgggg tgttcgtggt 180
 ggagtgcggt gctgagggcc tgcgtggggt ggtcgtggtg gagtgcagtg ctgagggttag 240
 agggtttctg tggctgtccc tcttaggtgg gcacctgcct gtggtctccc tgcag 295

<210> 240
 <211> 554
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(554)
 <223> n = g, a, c or t

<400> 240
 ctgcagggag acccgaggc aggtgcccac ctaaggggga cagctacaga aaccctctaa 60
 ctcagcactg nactccacca cgacacccca cgcaggccct cagcaccgca ctccaccacg 120
 aacaacccac acaggctgag tgctggagcc agaagctggc agaacatggg accacagggg 180
 ccaggcacca cacaacatg gcgacggaca caggcatnca aaccgactcg gacctccgcc 240
 agnccccag cgcacaaaca tctgggatcc ccaggaaaag agctgcgtgc gggcagcgca 300
 gaaaccagca cagtggttag atatgattaa gcgggcgngt cgantaatct gaggtctgat 360
 actcactgac tgtcgtaagg gngaattcgc gggcgcgtaa attcaattcg gcctatagtg 420
 agtcgtatta caattcactg ggcggcggtt tacaacgtct gtgactggga aaaacctgng 480
 cgttatccaa cttaatctgn gcttgagaa tttccctttt gcagactggg cgtaataacg 540
 aaaaagggnc cgaa 554

<210> 241
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 241
 ctgcagggag acacaggcag gtgcccacct aagaggggaca gccacagaaa cctctaaacc 60
 tcagcactgc actccaccac gaccacccca cgcaggccct cagcaccgca ctccaccacg 120
 aacacccac acaggctgag gctggagcca gaagctgcca gaacatggga ccacagggcc 180
 aggcaccaca caaacatggc gacggacaca gccatccaac ccgactcgga cctccgccag 240
 gccccagcg cacaaccatc tgggatcccc aggaaaagag ctgcgtgcgg ccag 294

<210> 242
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 242
 ctgcaggaga cgcgaggcag gtgcccacct aagggggaca gctacagaaa ccctctaacc 60
 tcagcactgc actccaccac gaacacccca cgcaggccct cagcaccgca ctccaccacg 120
 aacacccacac acaggctgag gctggagcca gaagctggca gaacatggga ccacaggggc 180
 caggcaccac acaaacatgg cgacggacac agccatccaa cccgactcgg acctccgcca 240
 ggccccccagc gcacaacatc tgggatcccc aggaaaagag ctgcgtgcgg cag 293

<210> 243
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 243
 ctgcaggaga cacaggcagg tgcccaccta agagggacag ccacagaaac cctctaacct 60
 cagcactgca ctccaccacg accacccccc gcaggccctc agcaccgcac tccaccacga 120
 acaccccaca caggctgagg ctggagccag aagctgccag aacatgggac cacagggcca 180
 ggcaccacac aaacatggcg acggacacag ccatccaacc cgactcggac ctccgccagg 240
 cccccagcgc acaaccatct gggatcccca ggaaaagagc tgcgtgcggc cag 293

<210> 244
 <211> 400
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(400)
 <223> n = g, a, c or t

<400> 244
 ccgcagtgga gacacaggca ggtgcccacc taagaggggac agccacagaa accctctaac 60
 ctcagcactg cactccacca cgacacccac gcaggccctc agaccgcact ccaccacgaa 120
 aaacccacac aggcgtgagg ctggagccag aagctgccag aacatgggan cacagggnga 180
 ggcgaccaca caaacatggc gacgtgacac aggcacccaa accgacatcg gactccgcag 240
 ggccccagcg cacaacata ctgggatccc caccgaaaag agctgcgtgc tgggcagnag 300
 cgcnagaaac cagcacagct ggttagagta cagataaana cgggcgcgtc gcacgtaaan 360
 ctgaaaaagg tcgtgagtat aatcaacatg tanactgntt 400

<210> 245
 <211> 690
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(690)
 <223> n = g, a, c or t

<400> 245
 ctgcagggga gaccacaggc aggtgcccac ctaagaggga cagccacaga aaccctctaa 60
 cctcagcact gcaactccacc acgancaccc cagcaggcc cccagcaccg cactccacca 120
 cgaaacaccc caacacaggc tgaggctgga gccagaagct ggccagaaca tgggaccaac 180
 gngcgggncc ccaacgcngg gcgggcccag aacgaccgaa aagcgaaacc caaaagaag 240
 nngcgcaaat tatgcagacc aggaaaccag atgaaaacaa accaaaggcg accaaatacc 300
 ccaaaananc accgncagc aaagcatata cgcggggaaa cgcccagttc caccacaggg 360
 gccccacaag gagggggaccc nccaccnacg ngcaggggca cgggccagca gacagcgaga 420

gcgccgcgaa	gtaccgatta	ggaggcggcg	aatacccgac	caccaaaaaa	gggggaaaca	480
cgaaagaaaag	ctgggaaaac	ggccccgattt	taggaccacg	ggagtttgac	cgcacgggga	540
gacgcccccc	caaagggaca	ccccagagg	cacaaaaagc	aagaagacac	cccccccaa	600
agagaccgct	caagaccga	aagagggttg	agcggcttcc	ttaacagagg	aagcttaacn	660
cggcacagtt	naaacgaagg	gcgagtgggc				690

<210> 246
 <211> 205
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (294)
 <223> n = g, a, c or t

<400> 246						
ctggccgcac	gcagctcttt	tcctggggat	cccagatggg	tgtgcgctgg	gggcctggtg	60
gaggtccgag	tcgggttgga	tggctgatgt	ccgccgccat	gatttgatag	atggatgcct	120
ggaccctgat	gagtcccaat	gattctggca	gacattctgg	acatccagca	catcagacct	180
gatgatgggg	atgnttcgat	ggatg				205

<210> 247
 <211> 358
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(358)
 <223> n = g, a, c or t

<400> 247						
ctggccgcac	gcagctcttt	tcctggggat	cccagatggg	tgtgcgctgg	gggcctggcg	60
gaggtccgag	tcgggttgga	tggctggctg	cgcagtgggtg	gtgcctggcc	tgggcctgtc	120
tggcagcttc	tggctccagc	ctcagccctg	tgtggggctg	gttccgntgg	tggagtgcgg	180
gtgctgaagg	ccatgcgatg	gagagtggat	cnaggaagga	gatgcagaag	catagagagt	240
tacgagggta	tctagtggct	gtaccctcta	taggtagggc	accatgacac	tagatgggtac	300
tnccttgaca	gaacgcaaga	aacaccaaga	aaaacctgag	aggccaacca	gaaatgac	358

<210> 248
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 248						
ctgcaggaga	ccacaggcag	gtgcccacct	aagaggggaca	gccacagaaa	ccctctaacc	60
tcagcactgc	actccaccac	gaccaccca	cgcaggccct	cagcaccgca	ctccaccacg	120
aacaccccac	acaggctgag	gctggagcca	gaagctgcc	gaacatggga	ccacagggcc	180
aggcaccaca	caaacatggc	gacggacaca	gccatccaac	ccgactcgga	cctccgccag	240
gccccccagcg	cacaaccatc	tgggatcccc	aggaaaagag	ctgcgtgcgg	ccag	294

<210> 249
 <211> 518
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(518)
 <223> n = g, a, c or t

```

<400> 249
actagttcta gatcgcgagc ggcgcccttt tttttttttt ttttaaaaag tctatatattt    60
tatattgggg ggagggagta gaaaagcaag cccctatact gggccctatt cagtggcagc    120
ttcttgttcc ataggattaa ggaagactct gaggaataa aagttgtttg gaaaaatcca    180
ggtgtagttg ctttgatatgt tgtgatgggt agaagggatg aagtgaagtg tgaaggccct    240
cataacctcc atcttgccctc aggactatag tcctggaacc ctnggggagg agaaaagcgc    300
caacatttca tncctgcata cataagggag aaggagacag gacaacgata agtgaaagag    360
aacagaacaa gcaagaaaag aagcgganaa cggccccaga caatagtaag ggcgaaangaa    420
tgggcagaag ncttgcaanc gtncccgagg gcaatacaat cccttgaaca caaganccag    480
ggcannccgg gaccacgcaa gaaaaccaag aaacacat                                518

```

<210> 250

<211> 592

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(592)

<223> n = g, a, c or t

```

<400> 250
gcccagagccg gactgggtcag gatgatcacc ggacgcgcag ctgcgccatct tcgccaacat    60
gctgggagcgt tgctctcttct tgcttgctgt tctctatcac tacgtggccg tcaacaatcc    120
caagaagcag tgaatgaaag tggcgctttc tccgggcccc gggttccagg acatagtctg    180
agtgaagat ggaggggtatg agggggcttc acacttcact tcatcctttt aaccattaaa    240
atacaaagcg aactacanct ggattttttcc aaacaaattt tatttctca gagtcttcct    300
taatcctatg gaacaagaag ctggcactga atagtgggcc agtatagggg cttgcgtttt    360
ctanatccct tcccccaata ttaaaatata tgacttttaa aaaaaaaaaa aaaagggngc    420
cggtcgcgat ctagaactag tccggagaaa ccagacagtt ggtagatag ataaagcggc    480
gcgtcgacta ntctgagggtc tgatactcac tgactgtcgt aagggcgaat tcgtttttaa    540
cctgcaggac tagtcccttt atgaggggta attctgagct tggcgtaatc at                                592

```

<210> 251

<211> 439

<212> DNA

<213> Homo sapiens

```

<400> 251
gccgagccgg actgggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc    60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca    120
agaagcagga atgaaagtgg cgctttctcc gcccagggt tccaggacat agtctgaggc    180
aagatggagg gtatgagggg ccttcacacg ttacttcag tcccttctac ccatcacaac    240
atacaaggca actacacctg gattttttcca aacaactttt atttctcag agtcttcctt    300
aatcctatgg aacaagaagc tgccactgaa tagggcccg tataggggct tgcttttcta    360
ctccctcccc ccaatataaa aatatagact tttaaaaaaa aaaaaaaaaa aagggcgccg    420
ctcgcgatct agaactagt                                439

```

<210> 252

<211> 387

<212> DNA

<213> Homo sapiens

```

<400> 252
gccgagccgg actgggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc    60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca    120
agaagcagga atgaaagtgg cgctttctcc gcccagggt tccaggacat agtctgaggc    180
aagatggagg gtatgagggg ccttcacact tcaacttcac cttctaccc atcacaacat    240
acaaagcaac tacacctgga tttttccaaa caacttttat ttctcagag tcttcttaa    300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact    360
ccctcccccc aatataaaaa tatagac                                387

```

```

<210> 253
<211> 208
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(208)
<223> n = g, a, c or t

<400> 253
actagttcta gatcgcgagc ggcgcccttt tttttttttt ttttaaaagt ctatattttt    60
atattggggg gagggagtag aaaagcaagc ccctatactg ggcctattc agtggcagct    120
tcttgttcca taggattaag gaagactctg aggaaataaa agttgttttg aaaaatccag    180
gtgtagttgc ttntgntatg ttgtgatg                                208

<210> 254
<211> 473
<212> DNA
<213> Homo sapiens

<400> 254
actagttcta gatcgcgagc ggcgcccttt ttttttttta aaagtctata tttttatatt    60
gggggggaggg agtagaaaaag caagccccta tactggggccc tattcagtgg cagcttcttg    120
ttccatagga ttaaggaaga ctctgaggaa ataaaagttg tttggaaaaa tccagggtga    180
gttgctttgt atgttgtgat gggtagaagg gatgaagtga agtgtgaagg cccctcatac    240
cctccatctt gcctcagact atgtcctgga accctggggc ggagaaagcg ccactttcat    300
tcctgcttct tgggattgtt gacggccacg tagtgataga gaacgacaag caagaagagc    360
gacacgcca gcatgttggc gaagatggcg agctgcacgt ccgtgatcat cctgaccagt    420
ccggctcggc ccgcagaaac cagcacactg gagccaccgc tgccaccggc ctt          473

<210> 255
<211> 470
<212> DNA
<213> Homo sapiens

<400> 255
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc    60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca    120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc    180
aagatggagg gtatgagggg ccttcacact tcacttcacat ccttctaccc atcacaacat    240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa    300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact    360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaggg cgccgctcgc    420
gatctagaac tagtccgcaa aaccagcac agtggttaga tagataaagc          470

<210> 256
<211> 208
<212> DNA
<213> Homo sapiens

<400> 256
actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta    60
tattgggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt    120
cttgttccat aggattaagg aagactctga ggaaataaaa gttgtttgga aaaatccagg    180
tgtagttgca tataagtatg ttgtgata                                208

<210> 257
<211> 435
<212> DNA
<213> Homo sapiens

```

```

<400> 257
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcac ctttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa      300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaagg gcgccgatcg      420
cgatctagaa ctagt                                     435

```

```

<210> 258
<211> 393
<212> DNA
<213> Homo sapiens

```

```

<400> 258
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc      180
aagatggagg gtatgaaggg ccttcacact tcacttcac ctttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa      300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaaa tactagactt att                                     393

```

```

<210> 259
<211> 367
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1) ... (367)
<223> n = g, a, c or t

```

```

<400> 259
actagttcta gatcgcgagc ggcgcccttt tttttttttt tttttaaaag tctatatttt      60
tatattgggg ggaggagta gaaaagcaag cccctatact gggccctatt cagtggcagc      120
ttcttggtcc ataggattaa ggaagactct gaggaataa aagttgtttg gaaaaatcca      180
ggtgtagtgt ctttgtatgt tgtgatgggt agaagggatg aagtgaagtg tgaaggccct      240
tcataccctc catcttgcc cagactatgt acctggaacc ctggggcnga gaaagcgcca      300
cnttcattcc tgcttctagg gatcgnnaga cggacacgat agntgactag agaacgacaa      360
gcaagaa                                     367

```

```

<210> 260
<211> 433
<212> DNA
<213> Homo sapiens

```

```

<400> 260
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacca cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcac ctttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttcctaat      300
cctcatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaat atagactttt aaaaaaaaaa aaaaaagggc gccgctcgcg      420
atctagaact agt                                     433

```

<210> 261
 <211> 434
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(434)
 <223> n = g, a, c or t

<400> 261
 actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta 60
 tattggggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt 120
 cttgttccat aggattagga agactctgag gaaataaaaag ttgtttggaa aaatccaggt 180
 gtagttgctt tgtatgttgat gatgggtaga agggatgaag tgaagtgtca agggccctca 240
 taccctccat cttgcctcag actatgtcct ggaaccctgg ggcggagaaa gcgccncttt 300
 cattcctgct tcttgggatt gttgacggcc acgtggtgat agagaacgac aagcaagaag 360
 agcganacgc ccagcatgtt ggcgaagatg gcgagctgca cgtccgtgat catcctgacc 420
 agtccaggct cggc 434

<210> 262
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 262
 gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc 60
 tgggcgtgct gctcttcttg cttgtcgttc tctatcacta cgtggccgct aacaatccca 120
 agaagcagga atgaaaagtgg cgctttctcc gccccagggg tccaggacat agtctgaggc 180
 aagatggagg gtatgagggg ccttcacact tcacttcata ccttctaccc atcacaacat 240
 acaaagcaac tacacctgga tttttccaaa caacttttat ttctctcagag tcttccttaa 300
 tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact 360
 ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaggg cgccgctcgc 420
 gatctagaac tagt 434

<210> 263
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 263
 actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta 60
 tattggggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt 120
 cttgttccat aggattaagg aagactctga ggaaataaaa gttgtttgga aaaatccagg 180
 tgtagttgct ttgtatgttg tgatgggtag aagggatgaa gtgaagtgtg aaggccctc 240
 ataccctcca tcttgcctca gactatgtcc tggaaccctg gggcggagaa agcgccactt 300
 tcattcctgc ttcttgggat tggtgacggc cacgtagtga tagagaacga ccagcaagaa 360
 gagcgacacg caccagcatg ttggcgaaga tggcgagctg cacgtccgtg atcatcctga 420
 ccaggtccgg catcgg 436

<210> 264
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 264
 gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc 60
 tgggcgtgct gctcttcttg cttgtcgttc tctatcacta cgtggccgct aacaatccca 120
 agaagcagga atgaaaagtgg cgctttctcc gccccagggg tccaggacat agtctgaggc 180
 aagatggagg gtatgagggg ccttcacact tcacttcata ccttctaccc atcacaacat 240
 acaaagcaac tacacctgga tttttccaaa caacttttat ttctctcagag tcttccttaa 300

tcctatggaa	caagaagctg	ccactgaata	gggcccagta	taggggcttg	cttttctact	360
ccctccccc	aatataaaaa	tatagacttt	taaaaaaaaa	aaaaaaagg	cgccgctcgc	420
gatctagaac	tagt					434

<210> 265
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 265						
gccgagccgg	actggtcagg	atgatcacgg	acgtgcagct	cgccatcgtc	gccaacatgc	60
tgggcgtgtc	gctcttcttg	cttgctgttc	tctatcacta	cgtggccgtc	aacaatccca	120
agaagcagga	atgaaaagtg	cgctttctcc	gccccagggt	tccaggacat	agtctgaggc	180
aagatggagg	gtatgagggg	ccttcacact	tcacttcac	ccttctaccc	atcacaacat	240
acaaagcaac	tacacctgga	tttttccaaa	caacttctta	ttcctcaga	gtcttcctta	300
atcctatgga	acaagaagct	gccactgaat	agggccagct	ataggggctt	gcttttctac	360
tccctccccc	caatataaaa	atatagactt	ttaaaaaaaa	aaaaaaagg	gcgcccgtcg	420
cgatctagaa	ctagt					435

<210> 266
 <211> 437
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(437)
 <223> n = g, a, c or t

<400> 266						
gccgagccgg	ctggtcagga	tgatcacgga	cgtgcagctc	gccatcttcg	ccaacatgct	60
gggcgtgtcg	ctcttcttgc	ttgtcggttc	ctatcactac	gtggccgctc	acaatcccaa	120
gaagcaggaa	tgaagggtgg	gctttctccg	ccccagggtt	ccaggacata	gtctgaggca	180
agatggaggg	tatgaggggc	ccttcacactt	cacttcatcc	ccttctaccca	tcacaacata	240
caaagcaact	acacctggat	ttttccaaac	aactttttatt	tcctcagagg	tcttccctta	300
atcctatgga	acaagaagct	gncactgaat	agggccagct	ataggggctt	gcttttctac	360
tccctccccc	caatatnaaa	atatagactt	ttaaaaaaaa	aaaaaaaaaa	gggcgcccgt	420
cgcgatctag	aactagt					437

<210> 267
 <211> 509
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(509)
 <223> n = g, a, c or t

<400> 267						
gccgagccgg	actggtcagg	atgatcacgg	acgtgcagct	cgccatcttc	gccaacatgc	60
tgggcgtgtc	gctcttcttg	cttgctgttc	tctatcacta	cgtggccgtc	aacaatccca	120
agaagcagga	atgaaaagtg	cgctttctcc	gncccagggt	tccaggacat	agtctgaggc	180
aagatggagg	gtatgagggg	ccttcacact	tcacttcac	ccttctaccc	atcacaacat	240
acaaagcaac	tacacctgga	tttttccaaa	caacttttat	ttcctcagag	tcttccttaa	300
tcctatggaa	caagaagctg	gcactgaata	gtggcccagct	ataggggctt	gcttttctac	360
tccctccccc	caatatnaaa	atatagactt	ttaaaaaaaa	aaaaaaagg	ggncggctcg	420
gatctagaac	tagtccgna	gaaaccagca	cagtgggttag	atagataaa	cgggcggtcg	480
actantctga	ggtctgatac	tcactgact				509

<210> 268
 <211> 594
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(594)
 <223> n = g, a, c or t

```

<400> 268
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcggtgc gctcttcttg cttgtcggtc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggg tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcata ccttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa      300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaaaa gggcgccgct      420
cgcgatctag aactagtccg nagaaccag cagctgggtt agatagataa agcggccgct      480
cgactagtct gaggtctgat actcactgac tgctgtaagg gcgaattcgt ttaaacctgc      540
aggactagtc cttttatgag gggttaaattc tgagcttggc gtaatcatgg tcac          594

```

<210> 269
 <211> 482
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(482)
 <223> n = g, a, c or t

```

<400> 269
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcggtgc gctcttcttg cttgtcggtc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggg tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcata ccttctaccc atcacaacat      240
acaaagcaac tacacactgg atttttccaa acaactttta tttcctcaga gtcttcctta      300
atcctatgga acaagaagct gccactgaat agggcccagt ataggggctt gcattttcta      360
ctccctccca cccaatataa aaatatagac tttttaaaca aacacaacaa cacaacaaaa      420
agggcgccag ctcggcgacg tagaactagt ccggcaagaa ccccagnaac agggggttaga      480
ta                                     482

```

<210> 270
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(438)
 <223> n = g, a, c or t

```

<400> 270
gccgagccgg actggtcagg atgatcacgg acgcgcagct cgccatcttc gccaacatgc      60
tgggcggtgc gctcttcttg cttgtcggtc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggg ttccaggaca tagtctgagg      180
caagatggag ggtatgaggg gccttcacac ttcacttcac cccttctanc catcacaaca      240
tacaaagcaa ctacacctgg atttttccaa acaactttta tttcctcaga gtcttcctta      300
atcctatgga acaagaagct ggcactgaat agggcccagt atangggctt gcgttttcta      360

```

ctccctcccc ccaatataaa aatatagact tttaaaaaaa aaaaatnaaa gggngccgct	420
cgcgatacta gaactagt	438

```

<210> 271
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(439)
<223> n = g, a, c or t

```

<400> 271	
ctagttctag atcgcgagcg gcgccctttt tttttttttt ttaaaagtct atattttttat	60
attgggggga gggagtagaa aagcaagccc ctatactggg ccctattcag tggcagcttc	120
ttgttccata ggattaagga agactctgag gaaataaaaag ttgtttggaa aaatccaggt	180
gtagttgctt tgtatgttgt gatgggtaga agggatgaag tgaagtgtga aggccctca	240
taccctccat cttgcctcag actatgtcct ggaaccttg ggcggagaaa gcgccactgt	300
tcattcctgc tntcttgga ttgttcgacg gncacgtaga tgatagagaa cgacaagcaa	360
gaagagcgaa nacgcccagc atgtaaggcg aagatggcga gctgcacgtc cgtgatcatc	420
ctgaccagtc cggctcgga	439

```

<210> 272
<211> 742
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(742)
<223> n = g, a, c or t

```

<400> 272	
actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta	60
tattggggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt	120
cttgttccat aggattaagg aagactctga ggaaataaaa gttgtttgga aaaatccagg	180
tgtagttgct ttgtatgttg tgatgggtag aagggatgaa gtgaagtgtg aaggccctc	240
ataccctcca tcttgccctca gactatgtcc tggaaacctg gggcggagaa agcgccactt	300
tcattcctgc ttcttgggat tgttgacggc cacgtagtga tagcgaacga caagcaagaa	360
gagcgacacg cccagcatgt tggcgacgat ggcgagctgc acgtccgtga tcatcctgac	420
cagtcgggct cggcccgaag aaccagaca acactggagc caccgtgcca ccggccttg	480
cggctacctc cttgtacaag ctcggtccat gccgagagaa gggcgaaata ctgcagatat	540
ccatcacaaac tggcgggccc catccgagca tgcactaga agggccaaat acgccatata	600
ggngagtcgg aataacaatt cacctggccg gcgatccaaa cgtcgtgact ggaaaaaacc	660
cgggggatna cccaaaaaag ttaaaatcgg ccngaaggac anaaccacac gattaggcaa	720
anagncgaa aaataacnaa aa	742

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<210> 273
<211> 437
<212> DNA
<213> Homo sapiens

```

<400> 273	
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc	60
tgggcgtgtc gctcttcttg cttgtcggtc tctatcacta cgtggccgtc aacaatccca	120
agaagcagga atgaagggtg cgctttctcc gcccagggg ttccaggaca tagtctgagg	180
caagatggag ggtatgaggg gccttcacac ttcacttcat cccttctacc catcacaaca	240
tacaaagcaa ctacacctgg atttttccaa acaactttta tttcctcaga gtcttctta	300
atcctatgga acaagaagct gccactgaat agggccagat ataggggctt gcttttctac	360

tccctccccc caatataaaa atatagactt ttaaaaaaaaaa aaaaaaaaaa gggcgccgct	420
cgcgatctag aactagt	437

<210> 274
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 274	
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc	60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgct aacaatccca	120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc	180
aagatggagg gtatgagggg ctttcacact tcaattcact ccttctaccc atcacaacat	240
acaaagcaac tacacctgga tttttccaaa caacttttat ttctcagag tcttccttaa	300
tcctatggaa caagaagctg ccactgaata gggccagta taggggcttg cttttctact	360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaaaa aa	412

<210> 275
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 275	
caccagcacc cttaccagaa gtcacacaac cacagcgtct gccccagaa gctgccagca	60
catctctgcc tcagaagcca cacttgaagt tagcacgct tcagagtcaa aatggcatag	120
tactgtcatg gagtgtcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc	180
tctatgctta ccatgaggaa cccagtgcc ctgtgccctc acaatggaaa aagattgggg	240
aagtcaaggc acttcccttg gcccatggca tgtactctca cccagtttgt atctggtagc	300
aaatactact ttg	313

<210> 276
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 276	
caccagcac cttaccaga agtccacaa ccacagcgtc tgccccaga agctgccagc	60
acatctctgc ctcagaagcc acacttgaag ttagcacgct ttcagagtca aaatggcata	120
gtactgtcat ggagtgtcct ggaggtggat cgaagctgtg ccactgttga tagctaccat	180
ctctatgctt accatgagga acccagtgcc actgtgccct cacaatggaa aaagattggg	240
gaagtcaagg cacttccctt gcccatggca tgtactctca cccagtttgt atctggtagc	300
aaatactact ttg	313

<210> 277
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 277	
caccagcac cttaccagaa gtcacacaac cacagcgtct gccccagaa gctgccagca	60
catctctgcc tcagaagcca cacttgaagt tagcacgct tcaggggtca aaatggcata	120
gtactgtcat ggagtgtcct ggaggtggat cgaagctgtg ccactgttga tagctaccat	180
ctctatgctt accatgagga acccagtgcc actgtgccct cacaatggaa aaagattggg	240
gaagtcaagg cacttccctt gcccatggca tgtactctca cccagtttgt atctggtagc	300
aaatactacg tttg	314

<210> 278
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 278
caccagcacc ttacagaagc tccacaacca cagcgtctgc cccagaagc tgccagcaca 60
tctctgcctc agaaaccaca cttgaagtta gcacgcgttc agagtcaaaa ctggcatagt 120
actgtcatgg agtgcctgg aggtggatcg aagctgtgcc actgttgata gctaccatct 180
ctatgcttac catgaggaac ccagtgccac tgtgccctca caatggaaaa agattgggga 240
agtcaaggca cttcccttgc ccatggcatg tactctcacc cagtttgtat ctggtagcaa 300
atactacttt g 311

<210> 279
<211> 313
<212> DNA
<213> Homo sapiens

<400> 279
caccagcacc cttaccaga agctccacaa ccacagcgtc tgcccccaga agctgccagc 60
acatctctgc ctcagaaacc acacttgaag ttagcacgcg ttcagagtca aaatggcata 120
gtactgtcat ggagtgtcct ggaggtggat cgaagctgtg ccactgttga tagctaccat 180
ctctatgctt accatgagga acccagtgcc actgtgccct cacaatggaa aaagattggg 240
gaagtcaagg cacttccctt gcccatggca tgtactctca ccagtttgt atctggtagc 300
aaatactact ttg 313

<210> 280
<211> 311
<212> DNA
<213> Homo sapiens

<400> 280
caccagcacc ttaccagaag ctccacaacc acagcgtctg cccccaagc ctgccagcac 60
atctctgcct cagaagccac acttgaagtt agcacgcgtt cagagtcaaa atggcatagt 120
actgtcatgg agtgcctgg aggtggatcg aagctgtgcc actgttgata gctaccatct 180
ctatgcttac catgaggaac ccagtgccac tgtgccctca caatggaaaa agattgggga 240
agtcaaggca cttcccttgc ccatggcatg tactctcacc cagtttgtat ctggtagcaa 300
atactacttt g 311

<210> 281
<211> 312
<212> DNA
<213> Homo sapiens

<400> 281
caccagcacc cttaccagaa gctccacaac cacagcgtct gccccagaa gctgccagca 60
catctctgcc tcagaagcca cacttgaagt tagcacgcgt tcagagtcaa aatggcatag 120
tactgtcatg gagtgcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc 180
tctatgctta ccatgaggaa cccagtgcc cgtgtgccct acaatggaaa aagattgggg 240
aagtcaaggc acttcccttg cccatggcat gtactctcac ccagtttgta tctggtagca 300
aatactactt tg 312

<210> 282
<211> 312
<212> DNA
<213> Homo sapiens

<400> 282
caccagcacc cttaccagaa gctccacaac cacagcgtct gccccagaa gctgccagca 60
catctctgcc tcagaaacca cacttgaagt tagcacgcgt tcagagtcaa aatggcatag 120
tactgtcatg gagtgcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc 180
tctatgctta ccatgaggaa cccagtgcc cgtgtgccct acaatggaaa aagattgggg 240
aagtcaaggc acttcccttg cccatggcat gtactctcac ccagtttgta tctggtagca 300
aatactactt tg 312

<210> 283
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 283
 caccagcacc ttaccagaag ctccacaacc acagcgtctg cccccagaag ctgccagcac 60
 atctctgcct cagaagccac acttgaagtt agcacgcgtt cagagtcaaa atggcatagt 120
 actgtcatgg agtgtcctgg aggtggatcg aagctgtgcc actgttgata gctaccatct 180
 ctatgcttac catgaggaac ccagtgccac tgtgccctca caatggaaaa agattgggga 240
 agtcaaggca cttcccttgc ccatggcatg tactctcacc cagtttgtat ctggtagcaa 300
 atactacttt g 311

<210> 284
 <211> 262
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(262)
 <223> n = g, a, c or t

<400> 284
 caccagcacc ttaccagaag ctccacaacc acagggcgtct ggccccccaa gaacaaacag 60
 ggcccccttgt ggtcgtncct cacaaaaggg ggccccctta taaacaccca taaaattttt 120
 cacccttttt ntcccccttg ggggtgtcccc cccccctttt tttccccaaa aaaggggncc 180
 caaaacccaaa gggggccccc cccctttaaa aaccctaaaa accccccttt tttttttttt 240
 tnggggggcc ccaaacccaa ac 262

<210> 285
 <211> 312
 <212> DNA
 <213> Homo sapiens

<400> 285
 caccagcacc cttaccagaa gctccacaac cacagcgtct gccccagaa gctgccagca 60
 catctctgcc tcagaagcca cacttgaagt tagcacgct tcagagtcaa aatggcatag 120
 tactgtcatg gagtgtcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc 180
 totatgctta ccatgaggaa ccagtgccac ctgtgccctc acaatggaaa aagattgggg 240
 aagtcaaggc acttcccttg cccatggcat gtactctcac ccagtttgta tctggtagca 300
 aatactactt tg 312

<210> 286
 <211> 2554
 <212> DNA
 <213> Homo sapiens

<400> 286
 atctaaacaa gaaagtagtg agagtttgcc aaaagaagcc tttctggtcc tctctgatga 60
 agaggatatt tcgggtgaaa aagatgagtc tgaagttata tcgcaaaatg aaacgtgctc 120
 tccagcagaa gttagaaagta atgaaaagga caacagacct gaggaagaag agcaagtaat 180
 acatgaagat gatgaaagac cttctgagaa aaatgaattt tctagacgaa aacgttctaa 240
 atcagaagac atggacaatg tacagtctaa acgtcgtcga tatatggaag aagaatatga 300
 ggcagaattt caagtaaaga ttacagccaa aggagacatt aaccagaaac ttcaaaagggt 360
 tatacagtgg ttgctggaag aaaaattgtg tgcgctgcag tgtgctgtat ttgataagac 420
 tttggcagaa ttgaaaacac gagtggaaaa gattgaatgt aacaagaggc ataaaacagt 480
 tctcactgaa ctacaggcca agatagccag gttaacccaa cgctttgaag cagccaaaga 540
 agatcttaag aaaagacatg aacatccacc caaccacca gtatcaccag gaaaaactgt 600
 aaatgatgtc aacagcaata ataacatgtc ttacagaaat gcaggcacag tgagacagat 660
 gctggagtc aaaagaaatg taagcgagag tgcaccacca tcctttcaaa ctctgtgaa 720

tacagtatct	tcaaccaate	ttgtcactcc	tccagcagtt	gtcagtagtc	aacctaaatt	780
gcagactcca	gtgacttcgg	gttccctcac	agcaacgtca	gttcttcctg	cacccaatac	840
agctactgta	gttgctacta	ctcaggtgcc	tagtggaat	ccccagccta	caatctcttt	900
acagcctttg	ccagtgattt	tgcattgtacc	tgttgtagta	tcctcccagc	ctcagcttct	960
acagagccat	ccagggactt	tggtgactaa	tcaacctct	ggcaatggtg	aattcatttc	1020
tgtgcaaagc	ccacctacag	tgagtgggtc	taccaaata	ccagtatcct	tgccatcctt	1080
gccaaatccc	actaaaccaa	acaacgttcc	ttctgtgccc	agtcctagta	ttcaaaggaa	1140
ccctactgcc	agtgtgtcac	cattgggaac	aacacttgct	gtgcaggctg	ttccaacagc	1200
acactctatt	gtacaagcca	caaggacttc	tttaccacac	gtgggcccac	caggactcta	1260
tagtccatca	actaatcgag	gtcctataca	gatgaaaatt	ccaatttctg	catttagtac	1320
ttcgtctgct	gcagaacaga	acagcaatac	cacccaaga	attgaaaacc	agacaaaaca	1380
aacaatagat	gcttctgtca	gtaagaaagc	agctgatagc	acatcacagt	gtggaaaagc	1440
cactggcagt	gattcaagt	gtgtcattga	tctcacaatg	gatgatgaag	agagtggagc	1500
ttcacaagac	cccaaaaaac	taaatacacac	tctgtatca	accatgagtt	cttctcagcc	1560
tgtgtcacga	ccattgcaac	ccatacaacc	agcaccgcct	cttcaaccat	ctgggggtgcc	1620
aacaagtggg	ccatctcaga	ccaccataca	cttactacct	acagctccaa	ctaccgtgaa	1680
tgtaacacat	cgtccagtaa	ctcaggtgac	cacaagactc	cctgtacca	gagctcctgc	1740
aaaccaccag	gtggtttata	caactcttcc	tgcaccacca	gtcaggctc	ccttgcgagg	1800
aactgttatg	caggtctctg	ctgttcggca	ggtcaatccc	caaaatagtg	ttacagtctg	1860
agtgcctcaa	acaaccacat	atgttgtaaa	caatggacta	accctgggat	caacaggacc	1920
tcagctcaca	gtgcatcacc	gaccaccaca	agtgcatact	gagcccccac	gccccgtgca	1980
cccagcaccc	ttaccagaag	ctccacaacc	acagcgtctg	cccccagaag	ctgccagcac	2040
atctctgcct	cagaagccac	acttgaagtt	agcacgcgtt	cagagtcaaa	atggcatagt	2100
actgtcatgg	ggtgtcctgg	aggtggatcg	aagctgtgcc	actgttgata	gctaccatct	2160
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<210> 287

<211> 709

<212> PRT

<213> Homo sapiens

<400> 287

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			20					25					30		
Lys	Leu	Gln	Lys	Val	Ile	Gln	Trp	Leu	Leu	Glu	Glu	Lys	Leu	Cys	Ala
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	50					55				60					
Val	Glu	Lys	Ile	Glu	Cys	Asn	Lys	Arg	His	Lys	Thr	Val	Leu	Thr	Glu
65					70				75					80	
Leu	Gln	Ala	Lys	Ile	Ala	Arg	Leu	Thr	Lys	Arg	Phe	Glu	Ala	Ala	Lys
			85					90						95	
Glu	Asp	Leu	Lys	Lys	Arg	His	Glu	His	Pro	Pro	Asn	Pro	Pro	Val	Ser
		100						105					110		
Pro	Gly	Lys	Thr	Val	Asn	Asp	Val	Asn	Ser	Asn	Asn	Asn	Met	Ser	Tyr
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Ser	Glu	Ser	Ala	Pro	Pro	Ser	Phe	Gln	Thr	Pro	Val	Asn	Thr	Val	Ser
145					150					155				160	
Ser	Thr	Asn	Leu	Val	Thr	Pro	Pro	Ala	Val	Val	Ser	Ser	Gln	Pro	Lys
			165					170						175	

129

Glu Val Lys Ala Leu Pro Leu Pro Met Ala Cys Thr Leu Thr Gln Phe
 660 665 670
 Val Ser Gly Ser Lys Tyr Tyr Phe Ala Val Arg Ala Lys Asp Ile Tyr
 675 680 685
 Gly Arg Phe Gly Pro Phe Cys Asp Pro Gln Ser Thr Asp Val Ile Ser
 690 695 700
 Ser Thr Gln Ser Ser
 705

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 <211> 412
 <212> DNA
 <213> Homo sapiens

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 aataccactt gaaactggag tgagaagctg gttacttgct tgcagtgcac cagaaccaag 180
 gtttctgggg tggccctgc agttcactcc gcccaggaga tcaaaaagga tgcgctctct 240
 acattcttaa atgccacagt cccctaccaa cggcttagtt gaagcacagc tcccacatca 300
 gcacttattc cctggcgcgg ccagcactgc ctctacgagg ccacacctgc ctctgccaag 360
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<210> 289
 <211> 406
 <212> DNA
 <213> Homo sapiens

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 gagctgtgct tccacctaag ccgttggttag gggactgtgg catttaagaa tgtagagagc 180
 gcaccccttt tgatctcctg ggcggagtga acctgcaggg gccaccccag aaaccttggg 240
 tctgatgcac tgcaagcaag taaccagctt ctactccag tttcaagtgg ctattatgta 300
 atataaattc aaagcacatt gtgaatagaa cctacatgaa aacatacact ttgttgccca 360
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<210> 290
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 <213> Homo sapiens

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 ttgaaactgg agtgagaagc tggttacttg cttgcagtgc atcagaacca aggtttctgg 180
 ggtggccctt gcaggttcac tccgcccagg agatcaaaaa ggatgcgctc tctacattct 240
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<210> 291
 <211> 406
 <212> DNA
 <213> Homo sapiens

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 ttgaaactgg agtgagaagc tggttacttg cttgcagtgc atcagaacca aggtttctgg 180
 ggtggccctt gcaggttcac tccgcccagg agatcaaaaa ggatgcgctc tctacattct 240

taaatgccac	agtcccctac	caacggctta	ggtggaagca	cagctccac	atcagcactg	300
atgccctggc	gcggccagca	ctgcctctac	gaggccacac	ctgcctctgc	caaggccact	360
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<210> 292

<211> 406

<212> DNA

<213> Homo sapiens

<400> 292

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atataaattc	aaagcacatt	gtgaatagaa	cctacatgaa	aacatacact	ttgttgccca	360
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<210> 293

<211> 406

<212> DNA

<213> Homo sapiens

<400> 293

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<210> 294

<211> 406

<212> DNA

<213> Homo sapiens

<400> 294

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<210> 295

<211> 406

<212> DNA

<213> Homo sapiens

<400> 295

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atataaattc	aaagcacatt	gtgaatagaa	cctacatgaa	aacatacact	ttgttgccca	360
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<210> 296
 <211> 406
 <212> DNA
 <213> Homo sapiens

<400> 296
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<210> 297
 <211> 5640
 <212> DNA
 <213> Homo sapiens

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<210> 298

<211> 738

<212> PRT

<213> Homo sapiens

<400> 298

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Lys	Gly	Asp	Asn	Leu	Pro	Lys	Phe	Ile	Asn	Cys	Glu	Phe	Ala	Tyr	Asn
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Asp	Asn	Trp	Phe	Ile	Thr	Phe	Glu	Thr	Glu	Ala	Asp	Ala	Gln	Gln	Ala
		275					280					285			
Tyr	Lys	Tyr	Leu	Arg	Glu	Glu	Val	Lys	Thr	Phe	Gln	Gly	Lys	Pro	Ile
	290					295					300				
Lys	Ala	Arg	Ile	Lys	Ala	Lys	Ala	Ile	Ala	Ile	Asn	Thr	Phe	Leu	Pro
305					310					315					320
Lys	Asn	Gly	Phe	Arg	Pro	Leu	Asp	Val	Ser	Leu	Tyr	Ala	Gln	Gln	Arg
				325					330					335	
Tyr	Ala	Thr	Ser	Phe	Tyr	Phe	Pro	Pro	Met	Tyr	Ser	Pro	Gln	Gln	Gln
			340					345					350		
Phe	Pro	Leu	Tyr	Ser	Leu	Ile	Thr	Pro	Gln	Thr	Trp	Ser	Ala	Thr	His
		355					360						365		
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	370					375					380				
Ile	Asn	Gly	Phe	Thr	Ser	Pro	Ala	Phe	Lys	Pro	Ala	Ala	Ser	Pro	Leu
385					390					395					400
Thr	Ser	Leu	Arg	Gln	Tyr	Pro	Pro	Arg	Ser	Arg	Asn	Pro	Ser	Lys	Ser
				405					410					415	
His	Leu	Arg	His	Ala	Ile	Pro	Ser	Ala	Glu	Arg	Gly	Pro	Gly	Leu	Leu
			420					425					430		
Glu	Ser	Pro	Ser	Ile	Phe	Asn	Phe	Thr	Ala	Asp	Arg	Leu	Ile	Asn	Gly
		435					440					445			
Val	Arg	Ser	Pro	Gln	Thr	Arg	Gln	Ala	Gly	Gln	Thr	Arg	Thr	Arg	Ile
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 <211> 336
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 <213> Homo sapiens

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 agagtgcgag cccccagggg tccccgtaag agagcgtctc ccctgcggtc cacttgggag 180
 caagagcggg gatcgaggca tagcgccagt cgggagtggg ctggggcggc tcgcctgcag 240
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 ggtgattagg agccgccggg gacgagctgc gggctct 336

<210> 301
 <211> 281
 <212> DNA
 <213> Homo sapiens

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 gcctgccag gcccagctgc tggagaccgc cagctctgtc cccggcggtc cctaatacacc 180
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<210> 302
 <211> 580
 <212> DNA
 <213> Homo sapiens

<220>
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 <223> n = g, a, c or t

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<210> 303
 <211> 446
 <212> DNA
 <213> Homo sapiens

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 gccaggggccc cagctgctgg agaccgcag ctcgtccccc gcggctccta atcaccagca 180

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ggcctggaag	ctagattcca	gaggcgtggg	ccacctctcc	ctgggttttg	gggagccccc	420
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<210> 304
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 <212> DNA
 <213> Homo sapiens

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<210> 305
 <211> 470
 <212> DNA
 <213> Homo sapiens

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<210> 306
 <211> 341
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(341)
 <223> n = g, a, c or t

<400> 306						
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<210> 307
 <211> 470
 <212> DNA
 <213> Homo sapiens

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<210> 308
 <211> 3981
 <212> DNA
 <213> Homo sapiens

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<210> 309

<211> 435

<212> PRT

<213> Homo sapiens

<400> 309

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Ser Gly Ala Val Ile Ile Ser Pro Ser Tyr Ala Ser Ser Val Asp Cys
35          40          45
Gly Gln Ala Pro Leu Asp Pro Val Tyr Leu Pro Ala Ala Leu Glu Leu
50          55          60
Leu Asp Ala Pro Glu His Phe Arg Val Gln Gln Val Gly His Tyr Pro
65          70          75          80
Pro Ala Asn Ser Ser Leu Ser Ser Arg Ser Glu Thr Phe Leu Leu Leu
85          90          95
Gln Pro Trp Pro Arg Ala Gln Pro Leu Leu Arg Ala Ser Tyr Pro Pro
100          105          110
Phe Ala Thr Gln Gln Val Val Pro Pro Arg Val Thr Glu Pro His Gln
115          120          125
Arg Pro Val Pro Trp Asp Val Arg Ala Val Ser Val Glu Ala Ala Val
130          135          140
Thr Pro Ala Glu Pro Tyr Ala Arg Val Leu Phe His Leu Lys Gly Gln
145          150          155          160
Asp Trp Pro Pro Gly Ser Gly Ser Leu Pro Cys Ala Arg Leu His Ala
165          170          175
Thr His Pro Ala Gly Thr Ala His Gln Ala Cys Arg Phe Gln Pro Ser
180          185          190
Leu Gly Ala Cys Val Val Glu Leu Glu Leu Pro Ser His Trp Phe Ser
195          200          205

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Gln Ala Ser Thr Thr Arg Ala Glu Leu Ala Tyr Thr Leu Glu Pro Ala
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 Pro Gln Tyr Gln Glu Val Pro Leu Asp Glu Ala Val Thr Leu Arg Val
 260 265 270
 Pro Asp Met Pro Val Arg Pro Gly Gln Leu Phe Ser Ala Thr Leu Leu
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 Lys Lys Gly Leu His Val Thr Ala Ala Arg Pro Ala Gln Pro Thr Leu
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 Trp Thr Ala Lys Leu Asp Arg Phe Lys Gly Ser Arg His His Thr Thr
 325 330 335
 Leu Ile Thr Cys His Arg Ala Gly Leu Thr Glu Pro Asp Ser Ser Pro
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 Leu Glu Leu Ser Glu Phe Leu Trp Val Asp Phe Val Val Glu Asn Ser
 355 360 365
 Thr Gly Gly Gly Val Ala Val Thr Arg Pro Val Thr Trp Gln Leu Glu
 370 375 380
 Tyr Pro Gly Gln Ala Pro Glu Ala Glu Lys Asp Lys Met Val Trp Glu
 385 390 395 400
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<210> 310
 <211> 135
 <212> DNA
 <213> Homo sapiens

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 gcccgggacc gcgag 135

<210> 311
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(458)
 <223> n = g, a, c or t

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<210> 312
 <211> 322
 <212> DNA
 <213> Homo sapiens

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<210> 313
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<210> 314
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
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 <223> n = g, a, c or t

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<210> 315
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 <213> Homo sapiens

<220>
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 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 319

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Glu	Ala	Ala	Arg	Arg	Arg	Gln	Gln	Arg	Glu	Ser	Lys	Ser	Asn	Ala	Ala		
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Gln	Asp	His	Thr	Val	Pro	Gly	Arg	Pro	Ala	Ala	Ser	Glu	Leu	His	Ser		
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Arg	Glu	Arg	Ala	Tyr	Gly	Ser	Ser	Gly	Glu	Leu	Ile	Thr	Ser	Leu	Pro	705	710	715
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Asp	Leu	Pro	Ser	Asp	Ser	Gly	Phe	Ser	Asp	Pro	Glu	Ser	Glu	Ala	Lys	870	875	880
Arg	Arg	Ile	Val	Phe	Thr	Ile	Thr	Thr	Gly	Ala	Gly	Ser	Ala	Lys	Gln	885	890	895
Ser	Pro	Ser	Ser	Lys	His	Ser	Pro	Leu	Thr	Ala	Ser	Ala	Arg	Gly	Asp	900	905	910
Cys	Val	Pro	Ser	His	Gly	Gln	Asp	Ser	Arg	Arg	Arg	Gly	Arg	Arg	Lys	915	920	925
Arg	Ala	Ser	Ala	Gly	Thr	Pro	Ser	Leu	Ser	Ala	Gly	Val	Ser	Pro	Lys	930	935	940
Arg	Arg	Ala	Leu	Pro	Ser	Val	Ala	Gly	Leu	Phe	Thr	Gln	Pro	Ser	Gly	945	950	955
Ser	Pro	Leu	Asn	Leu	Asn	Ser	Met	Val	Ser	Asn	Ile	Asn	Gln	Pro	Leu	960	965	970
Glu	Ile	Thr	Ala	Ile	Ser	Ser	Pro	Glu	Thr	Ser	Leu	Lys	Ser	Ser	Pro	975	980	985
Val	Pro	Tyr	Gln	Asp	His	Asp	Gln	Pro	Pro	Val	Leu	Lys	Lys	Glu	Arg	990	995	1000
Pro	Leu	Ser	Gln	Thr	Asn	Gly	Ala	His	Tyr	Ser	Pro	Leu	Thr	Ser	Asp	1005	1010	1015
Glu	Glu	Pro	Gly	Ser	Glu	Asp	Glu	Pro	Ser	Ser	Ala	Arg	Ile	Glu	Arg	1020	1025	1030
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Glu	Asn	Gly	Gly	Gly	Leu	Ala	Gly	Arg	Lys	Pro	Ala	Pro	Ala	Gly	Glu	1050	1055	1060
Pro	Val	Asn	Ser	Ser	Lys	Trp	Lys	Ser	Thr	Phe	Ser	Pro	Ile	Ser	Asp	1065	1070	1075
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6807

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Ala Phe Arg Arg Leu Arg Asn Leu Asn Thr Leu Leu Leu Asn Asn Asn
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Gln Ile Lys Arg Ile Pro Ser Gly Ala Phe Glu Asp Leu Glu Asn Leu
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Lys Tyr Leu Tyr Leu Tyr Lys Asn Glu Ile Gln Ser Ile Asp Arg Gln
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Ala Phe Lys Gly Leu Ala Ser Leu Glu Gln Leu Tyr Leu His Phe Asn
130 135 140
Gln Ile Glu Thr Leu Asp Pro Asp Ser Phe Gln His Leu Pro Lys Leu
145 150 155 160
Glu Arg Leu Phe Leu His Asn Asn Arg Ile Thr His Leu Val Pro Gly
165 170 175
Thr Phe Asn His Leu Glu Ser Met Lys Arg Leu Arg Leu Asp Ser Asn
180 185 190
Thr Leu His Cys Asp Cys Glu Ile Leu Trp Leu Ala Asp Leu Leu Lys
195 200 205
Thr Tyr Ala Glu Ser Gly Asn Ala Gln Ala Ala Ala Ile Cys Glu Tyr
210 215 220
Pro Arg Arg Ile Gln Gly Arg Ser Val Ala Thr Ile Thr Pro Glu Glu
225 230 235 240
Leu Asn Cys Glu Arg Pro Arg Ile Thr Ser Glu Pro Gln Asp Ala Asp
245 250 255
Val Thr Ser Gly Asn Thr Val Tyr Phe Thr Cys Arg Ala Glu Gly Asn
260 265 270
Pro Lys Pro Glu Ile Ile Trp Leu Arg Asn Asn Asn Glu Leu Ser Met
275 280 285
Lys Thr Asp Ser Arg Leu Asn Leu Leu Asp Asp Gly Thr Leu Met Ile
290 295 300
Gln Asn Thr Gln Glu Thr Asp Gln Gly Ile Tyr Gln Cys Met Ala Lys
305 310 315 320
Asn Val Ala Gly Glu Val Lys Thr Gln Glu Val Thr Leu Arg Tyr Phe
325 330 335
Gly Ser Pro Ala Arg Pro Thr Phe Val Ile Gln Pro Gln Asn Thr Glu
340 345 350
Val Leu Val Gly Glu Ser Val Thr Leu Glu Cys Ser Ala Thr Gly His
355 360 365
Pro Pro Pro Arg Ile Ser Trp Thr Arg Gly Asp Arg Thr Pro Leu Pro
370 375 380
Val Asp Pro Arg Val Asn Ile Thr Pro Ser Gly Gly Leu Tyr Ile Gln
385 390 395 400
Asn Val Val Gln Gly Asp Ser Gly Glu Tyr Ala Cys Ser Ala Thr Asn
405 410 415

Asn	Ile	Asp	Ser	Val	His	Ala	Thr	Ala	Phe	Ile	Ile	Val	Gln	Ala	Leu	420	425	430
Pro	Gln	Phe	Thr	Val	Thr	Pro	Gln	Asp	Arg	Val	Val	Ile	Glu	Gly	Gln	435	440	445
Thr	Val	Asp	Phe	Gln	Cys	Glu	Ala	Lys	Gly	Asn	Pro	Pro	Pro	Val	Ile	450	455	460
Ala	Trp	Thr	Lys	Gly	Gly	Ser	Gln	Leu	Ser	Val	Asp	Arg	Arg	His	Leu	465	470	475
Val	Leu	Ser	Ser	Gly	Thr	Leu	Arg	Ile	Ser	Gly	Val	Ala	Leu	His	Asp	485	490	495
Gln	Gly	Gln	Tyr	Glu	Cys	Gln	Ala	Val	Asn	Ile	Ile	Gly	Ser	Gln	Lys	500	505	510
Val	Val	Ala	His	Leu	Thr	Val	Gln	Pro	Arg	Val	Thr	Pro	Val	Phe	Ala	515	520	525
Ser	Ile	Pro	Ser	Asp	Thr	Thr	Val	Glu	Val	Gly	Ala	Asn	Val	Gln	Leu	530	535	540
Pro	Cys	Ser	Ser	Gln	Gly	Glu	Pro	Glu	Pro	Ala	Ile	Thr	Trp	Asn	Lys	545	550	555
Asp	Gly	Val	Gln	Val	Thr	Glu	Ser	Gly	Lys	Phe	His	Ile	Ser	Pro	Glu	565	570	575
Gly	Phe	Leu	Thr	Ile	Asn	Asp	Val	Gly	Pro	Ala	Asp	Ala	Gly	Arg	Tyr	580	585	590
Glu	Cys	Val	Ala	Arg	Asn	Thr	Ile	Gly	Ser	Ala	Ser	Val	Ser	Met	Val	595	600	605
Leu	Ser	Val	Asn	Val	Pro	Asp	Val	Ser	Arg	Asn	Gly	Asp	Pro	Phe	Val	610	615	620
Ala	Thr	Ser	Ile	Val	Glu	Ala	Ile	Ala	Thr	Val	Asp	Arg	Ala	Ile	Asn	625	630	635
Ser	Thr	Arg	Thr	His	Leu	Phe	Asp	Ser	Arg	Pro	Arg	Ser	Pro	Asn	Asp	645	650	655
Leu	Leu	Ala	Leu	Phe	Arg	Tyr	Pro	Arg	Asp	Pro	Tyr	Thr	Val	Glu	Gln	660	665	670
Ala	Arg	Ala	Gly	Glu	Ile	Phe	Glu	Arg	Thr	Leu	Gln	Leu	Ile	Gln	Glu	675	680	685
His	Val	Gln	His	Gly	Leu	Met	Val	Asp	Leu	Asn	Gly	Thr	Ser	Tyr	His	690	695	700
Tyr	Asn	Asp	Leu	Val	Ser	Pro	Gln	Tyr	Leu	Asn	Leu	Ile	Ala	Asn	Leu	705	710	715
Ser	Gly	Cys	Thr	Ala	His	Arg	Arg	Val	Asn	Asn	Cys	Ser	Asp	Met	Cys	725	730	735
Phe	His	Gln	Lys	Tyr	Arg	Thr	His	Asp	Gly	Thr	Cys	Asn	Asn	Leu	Gln	740	745	750
His	Pro	Met	Trp	Gly	Ala	Ser	Leu	Thr	Ala	Phe	Glu	Arg	Leu	Leu	Lys	755	760	765
Ser	Val	Tyr	Glu	Asn	Gly	Phe	Asn	Thr	Pro	Arg	Gly	Ile	Asn	Pro	His	770	775	780
Arg	Leu	Tyr	Asn	Gly	His	Ala	Leu	Pro	Met	Pro	Arg	Leu	Val	Ser	Thr	785	790	795
Thr	Leu	Ile	Gly	Thr	Glu	Thr	Val	Thr	Pro	Asp	Glu	Gln	Phe	Thr	His	805	810	815
Met	Leu	Met	Gln	Trp	Gly	Gln	Phe	Leu	Asp	His	Asp	Leu	Asp	Ser	Thr	820	825	830
Val	Val	Ala	Leu	Ser	Gln	Ala	Arg	Phe	Ser	Asp	Gly	Gln	His	Cys	Ser	835	840	845
Asn	Val	Cys	Ser	Asn	Asp	Pro	Pro	Cys	Phe	Ser	Val	Met	Ile	Pro	Pro	850	855	860
Asn	Asp	Ser	Arg	Ala	Arg	Ser	Gly	Ala	Arg	Cys	Met	Phe	Phe	Val	Arg	865	870	875
Ser	Ser	Pro	Val	Cys	Gly	Ser	Gly	Met	Thr	Ser	Leu	Leu	Met	Asn	Ser	885	890	895

Val	Tyr	Pro	Arg	Glu	Gln	Ile	Asn	Gln	Leu	Thr	Ser	Tyr	Ile	Asp	Ala		
			900					905					910				
Ser	Asn	Val	Tyr	Gly	Ser	Thr	Glu	His	Glu	Ala	Arg	Ser	Ile	Arg	Asp		
		915					920					925					
Leu	Ala	Ser	His	Arg	Gly	Leu	Leu	Arg	Gln	Gly	Ile	Val	Gln	Arg	Ser		
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Gly	Lys	Pro	Leu	Leu	Pro	Phe	Ala	Thr	Gly	Pro	Pro	Thr	Glu	Cys	Met		
945					950					955					960		
Arg	Asp	Glu	Asn	Glu	Ser	Pro	Ile	Pro	Cys	Phe	Leu	Ala	Gly	Asp	His		
			965					970						975			
Arg	Ala	Asn	Glu	Gln	Leu	Gly	Leu	Thr	Ser	Met	His	Thr	Leu	Trp	Phe		
		980						985					990				
Arg	Glu	His	Asn	Arg	Ile	Ala	Thr	Glu	Leu	Leu	Lys	Leu	Asn	Pro	His		
		995					1000					1005					
Trp	Asp	Gly	Asp	Thr	Ile	Tyr	Tyr	Glu	Thr	Arg	Lys	Ile	Val	Gly	Ala		
	1010				1015						1020						
Glu	Ile	Gln	His	Ile	Thr	Tyr	Gln	His	Trp	Leu	Pro	Lys	Ile	Leu	Gly		
1025					1030					1035					1040		
Glu	Val	Gly	Met	Arg	Thr	Leu	Gly	Glu	Tyr	His	Gly	Tyr	Asp	Pro	Gly		
			1045					1050						1055			
Ile	Asn	Ala	Gly	Ile	Phe	Asn	Ala	Phe	Ala	Thr	Ala	Ala	Phe	Arg	Phe		
		1060					1065						1070				
Gly	His	Thr	Leu	Val	Asn	Pro	Leu	Leu	Tyr	Arg	Leu	Asp	Glu	Asn	Phe		
	1075				1080						1085						
Gln	Pro	Ile	Ala	Gln	Asp	His	Leu	Pro	Leu	His	Lys	Ala	Phe	Phe	Ser		
	1090				1095						1100						
Pro	Phe	Arg	Ile	Val	Asn	Glu	Gly	Gly	Ile	Asp	Pro	Leu	Leu	Arg	Gly		
1105					1110					1115					1120		
Leu	Phe	Gly	Val	Ala	Gly	Lys	Met	Arg	Val	Pro	Ser	Gln	Leu	Leu	Asn		
			1125					1130						1135			
Thr	Glu	Leu	Thr	Glu	Arg	Leu	Phe	Ser	Met	Ala	His	Thr	Val	Ala	Leu		
		1140						1145					1150				
Asp	Leu	Ala	Ile	Asn	Ile	Gln	Arg	Gly	Arg	Asp	His	Gly	Ile	Pro			
	1155					1160					1165						
Pro	Tyr	His	Asp	Tyr	Arg	Val	Tyr	Cys	Asn	Leu	Ser	Ala	Ala	His	Thr		
	1170					1175					1180						
Phe	Glu	Asp	Leu	Lys	Asn	Glu	Ile	Lys	Asn	Pro	Glu	Ile	Arg	Glu	Lys		
1185					1190					1195					1200		
Leu	Lys	Arg	Leu	Tyr	Gly	Ser	Thr	Leu	Asn	Ile	Asp	Leu	Phe	Pro	Ala		
			1205					1210						1215			
Leu	Val	Val	Glu	Asp	Leu	Val	Pro	Gly	Ser	Arg	Leu	Gly	Pro	Thr	Leu		
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Met	Cys	Leu	Ser	Thr	Gln	Phe	Lys	Arg	Leu	Arg	Asp	Gly	Asp	Arg			
	1235					1240					1245						
Leu	Trp	Tyr	Glu	Asn	Pro	Gly	Val	Phe	Ser	Pro	Ala	Gln	Leu	Thr	Gln		
	1250					1255					1260						
Ile	Lys	Gln	Thr	Ser	Leu	Ala	Arg	Ile	Leu	Cys	Asp	Asn	Ala	Asp	Asn		
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Ile	Thr	Arg	Val	Gln	Ser	Asp	Val	Phe	Arg	Val	Ala	Glu	Phe	Pro	His		
			1285					1290					1295				
Gly	Tyr	Gly	Ser	Cys	Asp	Glu	Ile	Pro	Arg	Val	Asp	Leu	Arg	Val	Trp		
		1300						1305					1310				
Gln	Asp	Cys	Cys	Glu	Asp	Cys	Arg	Thr	Arg	Gly	Gln	Phe	Asn	Ala	Phe		
		1315					1320					1325					
Ser	Tyr	His	Phe	Arg	Gly	Arg	Arg	Ser	Leu	Glu	Phe	Ser	Tyr	Gln	Glu		
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Asp	Lys	Pro	Thr	Lys	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Pro	Ser	Val	Gly		
1345					1350					1355					1360		
Arg	Gln	Gly	Glu	His	Leu	Ser	Asn	Ser	Thr	Ser	Ala	Phe	Ser	Thr	Arg		
			1365						1370						1375		

Ser Asp Ala Ser Gly Thr Asn Asp Phe Arg Glu Phe Val Leu Glu Met
1380 1385 1390
Gln Lys Thr Ile Thr Asp Leu Arg Thr Gln Ile Lys Lys Leu Glu Ser
1395 1400 1405
Arg Leu Ser Thr Thr Glu Cys Val Asp Ala Gly Gly Glu Ser His Ala
1410 1415 1420
Asn Asn Thr Lys Trp Lys Lys Asp Ala Cys Thr Ile Cys Glu Cys Lys
1425 1430 1435 1440
Asp Gly Gln Val Thr Cys Phe Val Glu Ala Cys Pro Pro Ala Thr Cys
1445 1450 1455
Ala Val Pro Val Asn Ile Pro Gly Ala Cys Cys Pro Val Cys Leu Gln
1460 1465 1470
Lys Arg Ala Glu Glu Lys Pro
1475

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<211> 780
<212> DNA
<213> Homo sapiens

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aaaactccca gttgcatatt gcatcctatn accaatgggc tttgctgcac attttttcca 120
catggtggag tcattgccac agggacaaga gatggccaen tccagttctg gacagctcct 180
agggtcctgt cctcactgaa ggcacttatg ccggaaagcc cttcgaagtt tcctaacaac 240
ttaccaagtc ctagcactgc ctatccccaa gaaaatgaaa gagtctctca catacaggac 300
ttttgttaag caacaccagc atcttgtgct tctttgggtga gcaggtaaat cgtcctgtca 360
aggagattgc tgggaataatg ggccaaacat ctgggtcttg attgaaatag cacttttctt 420
gggattgtga atagaatgta gcaaaaccag attccagtgt actagtcatg gatctttctc 480
tccttgatc gtgaaagtca gcttagagga agagatccac ttgcaccggc acagagccgc 540
ggagaaccag cgacactggg agcacgggtg caacggccct ggcggctctc ctgtacagct 600
cgtcangccg agagaaggcc aaaatncggg aaacctgatg gaatcgccct tagtgagggt 660
atccagaact ggcaacatgc canaaacggt accgggtaaa ctgttcccccc ccatcccca 720
aaaacnaca aaggaccggc ccncacataa caacacacaa aagcgcacan ccatcacaga 780

<210> 327
<211> 333
<212> DNA
<213> Homo sapiens

<400> 327
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ggtggagtca ttgccacagg gacaagagat ggccacgtcc agttctggac agtcctagg 180
gtcctgtcct cactgaagca cttatgccg aaagcccttc gaagtttcct aacaacttac 240
caagtcttag cactgccaat cccaagaaa atgaaagagt tcctcacata caggactttt 300
ttaagcaaca ccacatcttg tgcttctttg tag 333

<210> 328
<211> 781
<212> DNA
<213> Homo sapiens

<220>
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 <222> (1)...(781)
 <223> n = g, a, c or t

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 aatcccaag aaatgctatt tcaatgcaag accagatgtt tggcccatta ttccagcaac 180
 tccctttgac aggacgattt accctgctac aacagaagca cacagatgtg gtgttgctta 240
 aaaaagtcct gtactgtgag gaactctttc acttttcttg gggattggcc acgtgctatg 300
 gacttaggta agttgttcag gaaacttcgc aagggttttc cggcataagt gctatcagt 360
 aggacaggac ctagtgagc tgtccagaac tggacgtggc catctcttgt ccctgtggcc 420
 aatgactcca ccatgtggaa tacatgtncg gcaaagccca ttggtcataa gaacaaaatg 480
 caatcgggag ttncagggtc cagggggccc agatcctgag ggaggtcntg tgcaatctgc 540
 cagcgtggca aggttaccaa gccccgana aaaccccaga gcaacaaggt ggggtctcaga 600
 atnagaatca agcgggcccgc tccganacta gccttcgcag ggggtcctgaa atactcacca 660
 aagggncggc aaataagggg gggcacattc gtttcaaaac ctgcgccgaa aaagacncct 720
 aggatgaang gctacaaatg accagcgtga gaaacactgg ccncgcagac cccgggggtga 780
 c 781

<210> 329
 <211> 544
 <212> DNA
 <213> Homo sapiens

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 aatcccaag aaatgctatt tcaatgcaag accagatgtt tggcccatta ttccagcaac 180
 tccctttgac aggacgattt accctgctac caaagaagca caagatgtgg tggttgctta 240
 aaaagtcctg tatgtgagga actctttcat tttcttgagg attggcagtg ctaggacttg 300
 gtaagttgtt aggaacttc gaagggtctt ccggcataag tgcttcagtg aggacaggac 360
 ctaggagct gtccagaact ggacgtggcc atctcttgct cctgtggcaa tgactccacc 420
 atgtggaaaa aatgtgcagc aaagccatt ggtcatagga gcaaagtcaa tgggagtttt 480
 cagttccagg gccagatcc tgaggagtct gtcactctgcc accgtggcaa ggtacaagcc 540
 cccg 544

<210> 330
 <211> 2610
 <212> DNA
 <213> Homo sapiens

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 accagtttga ttggaagtcc agctgtgaaa cctggagcgt cgccttctcc ccagatggct 180
 cctggtttgc ttggtctcaa ggacactgca tcgtcaaaact gatccccctg ccgttgagg 240
 agcagttcat ccctaaaggg tttgaagcca aaagccgaag tagcaaaaat gagacgaaag 300
 ggccggggcag cccaaaagag aagacgctgg actgtgtgca gattgtctgg gggctggcct 360
 tcagcccgtg gccttcccca cccagcagga agctctgggc acgccaccac cccaagtgc 420
 ccgatgtctc ttgcttggtt cttgctacgg gactcaacga tgggcagatc aagatctggg 480
 aggtgcagac agggctcctg cttttgaatc tttccggcca ccaagatgtc gtgagagatc 540
 tgagcttcac acccagtggc agtttgattt tggctctccgc gtcacgggat aagactcttc 600
 gcatctggga cctgaataaa cacggtaaac agattcaagt gttatcgggc cacctgcagt 660
 gggtttactg ctgttccatc tcccagact gcagcatgct gtgctctgca gctggagaga 720
 agtcggtctt tctatggagc atgaggctct acacgttaat tcggaagcta gagggccatc 780
 aaagcagtggt tgtctcttgt gacttctccc ccgactctgc cctgcttgtc acggcttctt 840
 acgataccaa tgtgattatg tgggaccctt acaccggcga aaggctgagg tcaactccacc 900
 acaccagggt tgaccccgcc atggatgaca gtgacgtcca cattagctca ctgagatctg 960
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tctggggcct	ggaactgaaa	actcccattg	catttgctcc	tatgaccaat	gggctttgct	1080
gcacattttt	tccacatggt	ggagtcattg	ccacagggac	aagagatggc	cacgtccagt	1140
tctggacagc	tcctaggggt	ctgtcctcac	tgaagcactt	atgccggaaa	gcccttcgaa	1200
gtttcctaac	aacttaccaa	gtcctagcac	tgccaatccc	caagaaaatg	aaagagtcc	1260
tcacatacag	gactttttta	gcaacaccac	atcttgtgct	tctttgtagc	agggtaaatc	1320
gtcctgtcaa	agggagttgc	tggaataatg	ggccaaacat	ctgggtcttg	attgaaatag	1380
catttctttg	ggattgtgaa	tagaatgtag	caaaaccaga	ttccagtgtg	ctagtcattg	1440
atctttctct	ccctggcatg	tgaaagtcag	tcttagagga	agagattcca	cttgcacggc	1500
aacagagcct	tacgttaaata	tttcagtcca	gttatgaaca	gcaagtgttg	aactctttct	1560
gcttgttttg	attcaaagtg	cagttactga	tggtgttttg	attatgcaac	taagtagggc	1620
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gcctagtacc	tatccttggt	tttctgatgc	agtggtagca	ttggttcaag	ttctctcctg	1740
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ctgcaggaca	gttttcctgg	agccatttgg	tatgaggtat	taatttagct	taactaaatt	1860
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atgtattctt	aaaccgcatg	actattcaga	tggtactga	gttatcagtg	gccatttatt	2040
agcatcatat	ttatttgtat	tttctcaaca	gatgttaagg	tacaactgtg	tttttctcga	2100
ttatctaaaa	accatagtac	ttaaattgaa	cagttgcaaa	gatgtcttaa	ttgtgtaaaag	2160
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acctgcctta	ggaaaattta	atatatttta	aattatttta	aaagaaatac	aacatcttat	2400
tcttttagctt	tcttaatcgg	tgctttatgg	aggccagtgt	aacgttacat	gactcgttga	2460
gaaagttgag	gaatttcctc	taccaccttt	gttgcttgaa	gaaaaacatg	tcttttcaaa	2520
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<210> 331
 <211> 404
 <212> PRT
 <213> Homo sapiens

<400> 331

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			20					25					30		
Ala	Phe	Ser	Pro	Asp	Gly	Ser	Trp	Phe	Ala	Trp	Ser	Gln	Gly	His	Cys
		35					40					45			
Ile	Val	Lys	Leu	Ile	Pro	Trp	Pro	Leu	Glu	Glu	Gln	Phe	Ile	Pro	Lys
	50					55					60				
Gly	Phe	Glu	Ala	Lys	Ser	Arg	Ser	Ser	Lys	Asn	Glu	Thr	Lys	Gly	Arg
65					70					75				80	
Gly	Ser	Pro	Lys	Glu	Lys	Thr	Leu	Asp	Cys	Gly	Gln	Ile	Val	Trp	Gly
			85					90					95		
Leu	Ala	Phe	Ser	Pro	Trp	Pro	Ser	Pro	Pro	Ser	Arg	Lys	Leu	Trp	Ala
			100					105					110		
Arg	His	His	Pro	Gln	Val	Pro	Asp	Val	Ser	Cys	Leu	Val	Leu	Ala	Thr
		115					120					125			
Gly	Leu	Asn	Asp	Gly	Gln	Ile	Lys	Ile	Trp	Glu	Val	Gln	Thr	Gly	Leu
	130					135					140				
Leu	Leu	Leu	Asn	Leu	Ser	Gly	His	Gln	Asp	Val	Val	Arg	Asp	Leu	Ser
145					150					155				160	
Phe	Thr	Pro	Ser	Gly	Ser	Leu	Ile	Leu	Val	Ser	Ala	Ser	Arg	Asp	Lys
			165					170					175		
Thr	Leu	Arg	Ile	Trp	Asp	Leu	Asn	Lys	His	Gly	Lys	Gln	Ile	Gln	Val
		180					185					190			
Leu	Ser	Gly	His	Leu	Gln	Trp	Val	Tyr	Cys	Cys	Ser	Ile	Ser	Pro	Asp
	195						200					205			

Cys Ser Met Leu Cys Ser Ala Ala Gly Glu Lys Ser Val Phe Leu Trp
 210 215 220
 Ser Met Arg Ser Tyr Thr Leu Ile Arg Lys Leu Glu Gly His Gln Ser
 225 230 235 240
 Ser Val Val Ser Cys Asp Phe Ser Pro Asp Ser Ala Leu Leu Val Thr
 245 250 255
 Ala Ser Tyr Asp Thr Asn Val Ile Met Trp Asp Pro Tyr Thr Gly Glu
 260 265 270
 Arg Leu Arg Ser Leu His His Thr Gln Val Asp Pro Ala Met Asp Asp
 275 280 285
 Ser Asp Val His Ile Ser Ser Leu Arg Ser Val Cys Phe Ser Pro Glu
 290 295 300
 Gly Leu Tyr Leu Ala Thr Val Ala Asp Asp Arg Leu Leu Arg Ile Trp
 305 310 315 320
 Ala Leu Glu Leu Lys Thr Pro Ile Ala Phe Ala Pro Met Thr Asn Gly
 325 330 335
 Leu Cys Cys Thr Phe Phe Pro His Gly Gly Val Ile Ala Thr Gly Thr
 340 345 350
 Arg Asp Gly His Val Gln Phe Trp Thr Ala Pro Arg Val Leu Ser Ser
 355 360 365
 Leu Lys His Leu Cys Arg Lys Ala Leu Arg Ser Phe Leu Thr Thr Tyr
 370 375 380
 Gln Val Leu Ala Leu Pro Ile Pro Lys Lys Met Lys Glu Phe Leu Thr
 385 390 395 400
 Tyr Arg Thr Phe

<210> 332
 <211> 257
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(257)
 <223> n = g, a, c or t

<400> 332
 cgtctgcctg ccactggtgc gggcgcgacg cctcgggcac gtaggctggc ttcctccgcc 60
 gcagggtctt tgnccggtaa aaccttggtc atgggtgccc caccgctctg gctccgtcct 120
 gcagggtttc ctggggggcc ccggggcccc cacaaggggg actggggggc aggggtgccg 180
 ttcaagggcc ccccttcctt tgttacaggc ttcggtccaa tgcngagaag gaaaggggcg 240
 aaattcnctg cagaata 257

<210> 333
 <211> 821
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(821)
 <223> n = g, a, c or t

<400> 333
 cgtctgcctg ccactggtgc gggcgcgacg cctcgggcac gtaggctggc ttcctccgcc 60
 gcagggtctg ccgtaacttg ttcattggtt cccgccccgt ctgggtccgt cctgcagggt 120
 tctggaggcc accgttgcca tcgggcctat gggcgggcct tccttcctt tgttaccagg 180
 ccttcagggt ccccaatagc ccgggaagga agaaaacggg ggcggaaatt tccttgcca 240
 ggagttattc ccnatttcaa acaaacttgg gccgggggac ccggagtttc cggaagcnc 300
 atatttgnca aatttcataa ggagaagggg gggggccccc acaaaatttt tcggcagccc 360
 cctttaattt anggtttgag aaaggatttc cgggtaattt ttacaccaa atttttcaac 420

tttgtggggc	gcccaggata	cagaggatat	ttaaaacaca	aaaaacggcg	gggtancagg	480
ggtntggggg	cctttggggg	ggagagaaga	aaaacccgcc	cccctttttg	tgggccgnng	540
nttttataac	gcccccccg	anaaaatcct	tttataaaat	ttccatgcga	gccgcccgtt	600
ttttttnggn	gtgagagagg	gacaggagca	caaataat	ttccccccgc	cctntttatt	660
tttttaccga	gggcgcccc	aanaggcggt	attggggacg	cggccgggtt	acaaaataat	720
aatgacgctg	cgagaaaaaa	tagagaaaag	ggtggccccc	cccctgcgga	gaanaacccc	780
gcgnggnag	atattacttg	gcagggagcg	ccccttttta	t		821

<210> 334
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(502)
 <223> n = g, a, c or t

<400> 334						
cgtctgcctg	ccactggtgc	gggcgcgacg	cctcggggcac	gtaggctggc	ttcctccgcc	60
gcaggctctg	ccgtaacttg	ttcatggtgc	ccgcccccg	ctggctccgt	cctgcagggt	120
ttctgggggc	ccggggggcc	ccaacaagg	ggggccttg	gggggccagg	gttgccggag	180
aagcccaagg	caacacttgg	ngaaagccca	accgntagg	cacaaccggg	gccacttatn	240
ggcganggag	ccatnacaca	ttcccttttg	gttaccacaag	ggcanatccg	gatccccaat	300
ttgcaccogg	anatggaaa	caaaaggggg	cgccggaaaa	aatttccttt	gcccagggat	360
taatttcccc	aaattccaaa	cacaccctgt	ggtggcacgg	gngaccacgg	aattccgaaa	420
aggccnattt	tggcccatat	tcttttaggg	aaaggggggg	cccccccaa	aagaattttg	480
ttcngggccc	cccatatata	aa				502

<210> 335
 <211> 657
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(657)
 <223> n = g, a, c or t

<400> 335						
cgtctgcctg	ccactggtgc	gtggcgcgac	gcctcggggca	cgtaggctgg	cttcctccgc	60
cgcaggctct	gccgttaaac	ttgttcattg	gtgcccggcc	cgttcttggc	ctccgtccct	120
tgcaggtttc	tggggggccc	ggngggggccc	ccaaacaagg	gggtggcttt	ggaagcccca	180
accgggttgc	caacnccgg	actatggggg	gacctttcac	attccttttg	ttaccaggct	240
tcggttcaca	attggcccga	aggaaaagaaa	agggggcgcg	gaaatttcct	tgtgcccaagg	300
atttttattc	ccaattttca	agcgaccgtt	gggcccggga	ccccggactc	cgaagccatt	360
tggcaattct	atnagggaaa	ggggngcccc	caaaatttcg	cggaccctat	aaataagatt	420
gagcagactc	gggtaattta	taacaaaattt	taccacaacg	cgttgttggg	gacccccggg	480
tatactgcag	gttatattt	ataaccanaa	aaggcggtga	tattccangt	agttgtggaa	540
aacctgttgt	ggnggggaaa	caaaaaaaaa	caacaccccc	cccctttttt	ggggtanggc	600
cgggtgattt	ttataacaac	ccccccagcc	aaaaagaagc	cgctttttnt	aanaaag	657

<210> 336
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 336						
cgaggaggct	cgcgcgctg	catcccgcac	catccccag	ccccagaaa	cctgcaggac	60
ggagccagac	ggggtgggca	ccatgaacaa	gttacggcag	agcctgcggc	ggaggaagcc	120
agcctacgtg	cccaggggcc	gtcgcgccc	aaccagtggc	aggcagacg		169

<210> 337
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 337
 cgtctgcctg ccactgggtgc gggcgcgacg cctcggggcac gtaggctggc ttcctccgcc 60
 gcaggctctg ccggttaactt gttcatgggtg cccaccccggt ctggctccgt cctgcagggt 120
 tctggggggt ggggggatggt gcgggatgca acgcgcgcga gcttcctcg 169

<210> 338
 <211> 160
 <212> DNA
 <213> Homo sapiens

<400> 338
 cgtctgcctg ccactgggtgc gggcgcgacg cctcggggcac gtaggctggc ttcctccgcc 60
 gcaggctctg ccgtaacttg ttcattgggtg ccgccccgtc tggctccgtc ctgcagggtt 120
 ctgggggatg gtgcgggatg cacgcgcgcg agcctcctcg 160

<210> 339
 <211> 159
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(159)
 <223> n = g, a, c or t

<400> 339
 cgaggaggct cgcgcgcgtg catcccgncac catccccag aaacctgcag gacggagcca 60
 gacggggcgg gcaccatgaa caagttacgg cagagcctgc ggcggaggaa gccagcctac 120
 gtgcccgagg cgtcgcgcgc gaccagtggc aggcagacg 159

<210> 340
 <211> 1830
 <212> DNA
 <213> Homo sapiens

<400> 340
 atgtcccga gcgcggcggc cagcggcgga ccccgaggc ctgagcggca cctgccccca 60
 gcccctgtg gggccccggg gccccagaa acctgcagga cggagccaga cggggcgggc 120
 accatgaaca agttacggca gaggctgcgg cggaggaagc cagcctacgt gcccaggcg 180
 tcgcgcccgc accagtggca ggcagacgag gacgcggtgc ggaagggcac gtgcagcttc 240
 ccggtcaggt acctgggtca cgtggaggta gaggagtccc ggggaatgca cgtgtgtgaa 300
 gatgcggtga agaagctgaa ggcgatgggc cgaaagtccg tgaagtctgt cctgtgggtg 360
 tcagccgatg ggctccgagt ggtggacgac aaaaccaagg atcttctggt cgaccagacc 420
 atcgaaaagg tctccttttg tgctcctgac cgcaacctgg acaaggcttt ctctatatc 480
 tgctgtgacg ggactaccgc ccgctggatc tgccactggt ttctggcact gaaggactcc 540
 ggcgagaggc tgagccacgc tgtgggctgt gcttttgccg cctgcctgga gcgaaaacag 600
 cgacgggaga aggaattgtg ggtcacggcc gccttcgatg ccagccgcac cagcttcgcc 660
 cgcgagggct ccttcgcct gtctgggggt gggcggcctg ctgagcgaga ggccccggac 720
 aagaagaaag cagaggcagc agctgcccc actgtggctc ctggccctgc ccagcctggg 780
 cacgtgtccc cgacaccagc caccacatcc cctggtgaga agggtgaggc aggcaccctt 840
 gtggctgcag gcaccactgc ggccgccatc ccccggcgcc atgcaccctt ggagcagctg 900
 gttccgccag gctccttcgc tgggttccca gcactcagcc agaagaactc gcctttcaaa 960
 cggcagctga gcctacggct gaatgagctg ccatccacgc tgcagcgccg cactgacttc 1020
 caggtgaagg gcacagtgcc tgagatggag cctcctggtg ccggcgacag tgacagcatc 1080
 aacgctctgt gcacacagat cagttcatct tttgccagt ctggagcgcc agcaccaggg 1140
 ccaccacctg ccacaacagg gacttctgcc tggggtgagc cctccgtgcc cctgcagct 1200

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gccttcacgc ctgggcacaa gcgacacct tcagaggctg agcgatggct ggaggaggtg 1260
tcacaggtgg ccaaggccca gcagcagcag cagcagcaac agcaacagca gcagcagcag 1320
cagcagcaac agcagcaagc agcctcagtg gccccagtg ccaccatgcc tcctgccttg 1380
cagcctttcc ccgccccgt ggggcccttt gacgtgcac ctgcccagaat ggccgtgttc 1440
ctgccacccc cacacatgca gcccccttt gtgccgcct acccgggctt gggctaccca 1500
ccgatgcccc ggggtgccgt ggtgggcac acaccctcac agatgggtggc aaacgccttc 1560
tgctcagccg cccagctcca gcctcagcct gccactctgc ttgggaaagc tggggccttc 1620
ccgccccctg ccataccag tgccccctggg agccaggccc gccctcgccc caatggggcc 1680
ccctggcccc ctgagccagc gcctgcccc gctccagagt tggacccctt tgaggcccag 1740
tgggcggcat tagaaggcaa agccactgta gagaaacctt ccaacccctt ttctggtgac 1800
ctgcaaaaga cattcgagat tgaactgtag 1830

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<210> 341
<211> 609
<212> PRT
<213> Homo sapiens

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<400> 341
Met Ser Arg Ser Ala Ala Ala Ser Gly Gly Pro Arg Arg Pro Glu Arg
1 5 10 15
His Leu Pro Pro Ala Pro Cys Gly Ala Pro Gly Pro Pro Glu Thr Cys
20 25 30
Arg Thr Glu Pro Asp Gly Ala Gly Thr Met Asn Lys Leu Arg Gln Ser
35 40 45
Leu Arg Arg Arg Lys Pro Ala Tyr Val Pro Glu Ala Ser Arg Pro His
50 55 60
Gln Trp Gln Ala Asp Glu Asp Ala Val Arg Lys Gly Thr Cys Ser Phe
65 70 75 80
Pro Val Arg Tyr Leu Gly His Val Glu Val Glu Glu Ser Arg Gly Met
85 90 95
His Val Cys Glu Asp Ala Val Lys Lys Leu Lys Ala Met Gly Arg Lys
100 105 110
Ser Val Lys Ser Val Leu Trp Val Ser Ala Asp Gly Leu Arg Val Val
115 120 125
Asp Asp Lys Thr Lys Asp Leu Leu Val Asp Gln Thr Ile Glu Lys Val
130 135 140
Ser Phe Cys Ala Pro Asp Arg Asn Leu Asp Lys Ala Phe Ser Tyr Ile
145 150 155 160
Cys Arg Asp Gly Thr Thr Arg Arg Trp Ile Cys His Cys Phe Leu Ala
165 170 175
Leu Lys Asp Ser Gly Glu Arg Leu Ser His Ala Val Gly Cys Ala Phe
180 185 190
Ala Ala Cys Leu Glu Arg Lys Gln Arg Arg Glu Lys Glu Cys Gly Val
195 200 205
Thr Ala Ala Phe Asp Ala Ser Arg Thr Ser Phe Ala Arg Glu Gly Ser
210 215 220
Phe Arg Leu Ser Gly Gly Gly Arg Pro Ala Glu Arg Glu Ala Pro Asp
225 230 235 240
Lys Lys Lys Ala Glu Ala Ala Ala Pro Thr Val Ala Pro Gly Pro
245 250 255
Ala Gln Pro Gly His Val Ser Pro Thr Pro Ala Thr Thr Ser Pro Gly
260 265 270
Glu Lys Gly Glu Ala Gly Thr Pro Val Ala Ala Gly Thr Thr Ala Ala
275 280 285
Ala Ile Pro Arg Arg His Ala Pro Leu Glu Gln Leu Val Arg Gln Gly
290 295 300
Ser Phe Arg Gly Phe Pro Ala Leu Ser Gln Lys Asn Ser Pro Phe Lys
305 310 315 320
Arg Gln Leu Ser Leu Arg Leu Asn Glu Leu Pro Ser Thr Leu Gln Arg
325 330 335

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Arg Thr Asp Phe Gln Val Lys Gly Thr Val Pro Glu Met Glu Pro Pro
 340 345 350
 Gly Ala Gly Asp Ser Asp Ser Ile Asn Ala Leu Cys Thr Gln Ile Ser
 355 360 365
 Ser Ser Phe Ala Ser Ala Gly Ala Pro Ala Pro Gly Pro Pro Pro Ala
 370 375 380
 Thr Thr Gly Thr Ser Ala Trp Gly Glu Pro Ser Val Pro Pro Ala Ala
 385 390 395 400
 Ala Phe Gln Pro Gly His Lys Arg Thr Pro Ser Glu Ala Glu Arg Trp
 405 410 415
 Leu Glu Glu Val Ser Gln Val Ala Lys Ala Gln Gln Gln Gln Gln Gln
 420 425 430
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Ala Ala
 435 440 445
 Ser Val Ala Pro Val Pro Thr Met Pro Pro Ala Leu Gln Pro Phe Pro
 450 455 460
 Ala Pro Val Gly Pro Phe Asp Ala Ala Pro Ala Gln Val Ala Val Phe
 465 470 475 480
 Leu Pro Pro Pro His Met Gln Pro Pro Phe Val Pro Ala Tyr Pro Gly
 485 490 495
 Leu Gly Tyr Pro Pro Met Pro Arg Val Pro Val Val Gly Ile Thr Pro
 500 505 510
 Ser Gln Met Val Ala Asn Ala Phe Cys Ser Ala Ala Gln Leu Gln Pro
 515 520 525
 Gln Pro Ala Thr Leu Leu Gly Lys Ala Gly Ala Phe Pro Pro Pro Ala
 530 535 540
 Ile Pro Ser Ala Pro Gly Ser Gln Ala Arg Pro Arg Pro Asn Gly Ala
 545 550 555 560
 Pro Trp Pro Pro Glu Pro Ala Pro Ala Pro Glu Leu Asp Pro
 565 570 575
 Phe Glu Ala Gln Trp Ala Ala Leu Glu Gly Lys Ala Thr Val Glu Lys
 580 585 590
 Pro Ser Asn Pro Phe Ser Gly Asp Leu Gln Lys Thr Phe Glu Ile Glu
 595 600 605
 Leu

<210> 342
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 342
 cgcgggatgt cgtactcgtc ctgctccggc tgggcggcct cgtatacata gccctgcccc 60
 acgcgggtgg gcaccaccac ctttgccggg ggcttcgtgc cctcccagct gcgtgtgtcc 120
 atggacgggg ggacctggtg gatgtcatgc cccatcccg cagaagggtg cacctggtaa 180
 atatcctggg cagggcctcc aggccttggg ggcacctggt acaggtctgt ggccgggctg 240
 ggaaacgggt gatgggtgt ctgcttcgag aaggtggatg tctgcttggc 290

<210> 343
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 343
 gccaaagcaga catccacctt ctggaagcag acaccccatc acccgtttcc cagcccggcc 60
 acagacctgt accaggtgcc ccaggggcct ggaggccctg cccaggatat ttaccaggtg 120
 ccaccttctg ccgggatggg gcatgacatc taccaggtcc ccccgatcca tggacacacg 180
 cagctgggag ggcacgaagc ccccggaaca ggtggtggtg cccacccgcg tggggcaggg 240
 ctatgtatac gaggccgccc agccggagca ggacgagtac gacatccgcg g 291

<210> 344
 <211> 291
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(291)
 <223> n = g, a, c or t

<400> 344	
cgcggggatgt cgtactcgtc ctgctccggc tgggcggcct cgntatacat agccctgccc	60
cacgcgggtg ggcaccacca cctttgccgg gggttcctg cctcccagc tgcgtgtgtc	120
catggacggg gggaccttgt agatgtcatg cccatcccg gcagaagggtg gcacctggta	180
aatatccttg gcagggcctc caggccctgg gggcacctgg tacaggctctg tggccgggct	240
gggaaacggg tgatggggtg tctgcttcga gaagggtggat gtctgcttgg c	291

<210> 345
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 345	
gccaagcaga catccacctt ctggaagcag acaccccatc acccgtttcc cagcccggcc	60
acagacctgt accaggtgcc ccagggggc tggaggccct gccaggata tttaccaggt	120
gccaccttct gccgggatgg ggcacatgac ctaccaggtc cccccgtcca tggacacacg	180
cagctgggag ggcacgaagc ccccggaagc ggtgggtggg cccacccgcg tggggcaggg	240
ctatgtatac gaggccgccc agccggagca ggacgagtac gacatcccgc g	291

<210> 346
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 346	
cgcggggatgt cgtactcgtc ctgctccggc tgggcggcct cgtatacata gccctgcccc	60
acgcgggtgg gcaccaccac ctttgccggg gggttcctg cctcccagct gcgtgtgtcc	120
atggacggg ggcacctggt gatgtcatgc cccatcccgg cagaagggtg cacctggtaa	180
atatcctgg cagggcctcc aggccttgg ggcacctgt acaggctctgt ggccgggctg	240
ggaaacgggt gatggggtgt ctgcttcgag aagggtggat tctgcttggc	290

<210> 347
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 347	
gccaagcaga catccacctt ctggaagcag acaccccatc acccgtttcc cagcccggcc	60
acagacctgt accaggtgcc ccaggggacc tggaggccct gccaggata tttaccaggt	120
gccaccttct gccgggatgg ggcacatgac ctaccaggtc cccccgatcc atggacacac	180
gcagctggga gggcacgaag ccccggaagc aggtgggtgg gcccacccgc gtggggcagg	240
gctatgtata cgaggccgccc cagccggagc aggcagagta cgacatcccg cg	292

<210> 348
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 348	
cgcggggatgt cgtactcgtc ctgctccggc tgggcggcct cgtatacata gccctgcccc	60
acgcgggtgg gcaccaccac ctttgccggg gggttcctg cctcccagct gcgtgtgtcc	120

atggacggggg	ggacctggta	gatgtcatgc	cccatcccgg	cagaagggtgg	cacctggtaa	180
atatacctggg	cagggccctcc	aggccctggg	ggcacctggg	acaggtctgt	ggccgggctg	240
ggaaacgggt	gatgggggtgt	ctgcttcgag	aagggtgatg	tctgcttggc		290

<210> 349
 <211> 292
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(292)
 <223> n = g, a, c or t

<400> 349						
gccaagcaga	catccacctt	ctcgaagcag	acaccccato	accggtttcc	cagccccggcc	60
acagacctgt	accaggtgcc	cccaggggcc	tggaggccct	gcccaggata	tttaccaggt	120
gccaccttct	gccgggatgg	ggcatgacat	ctaccaggtc	cccccgatcc	atggacacac	180
gcagctggga	gggcacgaag	cccccgcaa	aggtgggtgt	gcccacccgc	gtggggcagg	240
gctatgtata	cgaggccgcc	cagccggagc	aggacgagta	cgacatcccg	cg	292

<210> 350
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 350						
gcgggatgtc	gtactcgtcc	tgctccggct	gggcggcctc	gtatacatag	ccctgccccca	60
cgcggttggg	caccaccacc	tttgccgggg	gcttcgtgcc	ctcccagctg	cgtgtgtcca	120
tggacggggg	gacctggtag	atgtcatgcc	ccatcccggc	agaagggtgg	acctggtaaa	180
tatcctgggc	agggcctcca	ggccctgggg	gcacctggta	caggtctgtg	gccgggctgg	240
gaaacgggtg	atgggggtgt	tgcttcgaga	aggtggatgt	ctgcttggc		289

<210> 351
 <211> 3208
 <212> DNA
 <213> Homo sapiens

<400> 351						
gaggcggcag	ctgcgcggcg	gcaccggggc	ggctgcggcg	cgctcggagc	cccgaggcac	60
gcggccccgg	cagctcgggtg	tgcgcccccg	cgagagccgg	gccccaggcc	cgccggacac	120
catgaaccac	ctgaacgtgc	tggccaaagc	gctctatgac	aatgtggccg	agtccccgga	180
tgagctctcc	ttccgcaagg	gtgacatcat	gacggtgctg	gagcaggaca	cgcagggcct	240
ggacggctgg	tggtctctgt	cgctgcatgg	gcgccagggc	atcgtgcctg	ggaaccgcct	300
caagatcttg	gtgggcatgt	atgataagaa	gccagcaggg	cctggctccg	gccctccgcg	360
caccccgggc	cagcctcagc	ctggcctcca	tgccccagcg	cctccggcct	cccagtacac	420
gcccattgtc	cccaacacct	accagcccca	gccagacagc	gtctacctgg	tgccactcc	480
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ggccacagac	ctgtaccagg	tgcccccagg	gcctggaggc	cctgcccagg	atatttacca	660
ggtgccacct	tctgcccggga	tggggcatga	catctaccag	gtccccccgt	ccatggacac	720
acgcagctgg	gagggcacga	agcccccgcc	aaagggtggtg	gtgccacccc	gcgtggggca	780
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tgatggtggc	gtggtcgaca	gtggtgtgta	tgcggtgcct	ccccagctg	aacgtgaagc	1380
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tgcgtcctcc	ttggaggtgg	cagggccggg	ccgggaaccc	ctggagctgg	aagttgctgt	1500
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ggtgcaggac	ctgcaggctg	ctgtggccgc	tgtccagagt	gccgtccacg	agctgttgga	1680
gtttgcccgc	agcgcggtgg	gcaatgctgc	ccacacatct	gaccgtgccc	tgcattgcaa	1740
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ggcctgctcg	cgggctgtgc	ccgaggacgc	caagcagctg	gcctccttcc	tgcacggcaa	1920
tgctcactg	ctcttcagac	ggaccaaggc	cactgccccg	gggcctgagg	gggggtggcac	1980
cctgcacccc	aaccccaactg	acaagaccag	cagcatccag	tcacgacccc	tgccctcacc	2040
ccctaagttc	acctcccagg	actcaccaga	tgggcagtac	gagaacagcg	aggggggctg	2100
gatggaggac	tatgactacg	tccacctaca	ggggaaggag	gagtttgaga	agaccagaa	2160
ggagctgctg	gaaaagggca	gcatacgcg	gcagggcaag	agccagctgg	agttgcagca	2220
gctgaagcag	tttgaacgac	tggaacagga	ggtgtcacgg	cccatagacc	acgacctggc	2280
caactggacg	ccagcccaac	ccctggcccc	ggggcgaaca	ggcgccctgg	ggccctcgga	2340
ccggcagctg	ctgctcttct	acctggagca	gtgtgaggcc	aacctgacca	cactgaccaa	2400
cgccgtggac	gccttcttta	ccgccgtggc	caccaaccag	ccgcccaga	tctttgtggc	2460
gcacagcaag	ttcgtcatcc	tcagcgccca	caagctggtg	ttcatcgggg	acacactgtc	2520
acggcaggcc	aaggctgctg	acgtgcgcag	ccaggtgacc	cactacagca	acctgctgtg	2580
cgacctcctg	cgcgccatcg	tggccaccac	caaggccgct	gccttgca	acccatcgcc	2640
ttccgcggcc	caggacatgg	tggagagggg	caaggagctg	ggccacagca	cccagcagtt	2700
ccgccgcgtc	ctaggccagc	tggcagccgc	ctgagggtgg	tgaccccagg	agggaggcag	2760
gggaggggtg	cggcggtccc	agctccctgg	ctcccagtc	aagagtcgct	gtgccacagg	2820
cttagggaca	ggaccccagc	tctgcgtcgg	tcctggtgcc	ctggatgccc	aggaatctgt	2880
atatatttat	ggccgggcag	ggtgtggggc	catgcctcct	caggagccga	agcccagggg	2940
ccgcagtggc	cttccccagc	atgcaccacg	ggcccggggt	gggtcaccag	acggggctgg	3000
agtgtgaggg	tcttcagacc	tgcaggacct	cgtgccaccc	cgagggctga	gcctggtccc	3060
acgaggggtg	cgtgtcccct	gacagggcca	gtgcagtttg	gtgtgtcctc	cgccttacca	3120
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tccatttaaa	taaagttttt	aaaaggaa				3208

<210> 352
 <211> 870
 <212> PRT
 <213> Homo sapiens

<400> 352

Met	Asn	His	Leu	Asn	Val	Leu	Ala	Lys	Ala	Leu	Tyr	Asp	Asn	Val	Ala
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Glu	Ser	Pro	Asp	Glu	Leu	Ser	Phe	Arg	Lys	Gly	Asp	Ile	Met	Thr	Val
			20					25					30		
Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
		35					40					45			
His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
	50					55					60				
Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
65					70					75					80
Thr	Pro	Ala	Gln	Pro	Gln	Pro	Gly	Leu	His	Ala	Pro	Ala	Pro	Pro	Ala
			85						90						95
Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
			100					105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
		115						120					125		
Gln	Val	Pro	Gly	Pro	Ser	Pro	Gln	Phe	Gln	Ser	Pro	Pro	Ala	Lys	Gln
	130						135						140		
Thr	Ser	Thr	Phe	Ser	Lys	Gln	Thr	Pro	His	His	Pro	Phe	Pro	Ser	Pro
145					150					155					160
Ala	Thr	Asp	Leu	Tyr	Gln	Val	Pro	Pro	Gly	Pro	Gly	Gly	Pro	Ala	Gln
				165					170					175	

Asp	Ile	Tyr	Gln	Val	Pro	Pro	Ser	Ala	Gly	Met	Gly	His	Asp	Ile	Tyr		
			180					185					190				
Gln	Val	Pro	Pro	Ser	Met	Asp	Thr	Arg	Ser	Trp	Glu	Gly	Thr	Lys	Pro		
		195					200						205				
Pro	Ala	Lys	Val	Val	Val	Pro	Thr	Arg	Val	Gly	Gln	Gly	Tyr	Val	Tyr		
	210					215					220						
Glu	Ala	Ala	Gln	Pro	Glu	Gln	Asp	Glu	Tyr	Asp	Ile	Pro	Arg	His	Leu		
225					230					235					240		
Leu	Ala	Pro	Gly	Pro	Gln	Asp	Ile	Tyr	Asp	Val	Pro	Pro	Val	Arg	Gly		
			245						250					255			
Leu	Leu	Pro	Ser	Gln	Tyr	Gly	Gln	Glu	Val	Tyr	Asp	Thr	Pro	Pro	Met		
			260					265					270				
Ala	Val	Lys	Gly	Pro	Asn	Gly	Arg	Asp	Pro	Leu	Leu	Glu	Val	Tyr	Asp		
		275					280						285				
Val	Pro	Pro	Ser	Val	Glu	Lys	Gly	Leu	Pro	Pro	Ser	Asn	His	His	Ala		
	290					295					300						
Val	Tyr	Asp	Val	Pro	Pro	Ser	Val	Ser	Lys	Asp	Val	Pro	Asp	Gly	Pro		
305					310					315					320		
Leu	Leu	Arg	Glu	Glu	Thr	Tyr	Asp	Val	Pro	Pro	Ala	Phe	Ala	Lys	Ala		
			325					330						335			
Lys	Pro	Phe	Asp	Pro	Ala	Arg	Thr	Pro	Leu	Val	Leu	Ala	Ala	Pro	Pro		
			340					345					350				
Pro	Asp	Ser	Pro	Pro	Ala	Glu	Asp	Val	Tyr	Asp	Val	Pro	Pro	Pro	Ala		
		355					360						365				
Pro	Asp	Leu	Tyr	Asp	Val	Pro	Pro	Gly	Leu	Arg	Arg	Pro	Gly	Pro	Gly		
	370					375					380						
Thr	Leu	Tyr	Asp	Val	Pro	Arg	Glu	Arg	Val	Leu	Pro	Pro	Glu	Val	Ala		
385					390					395					400		
Asp	Gly	Gly	Val	Val	Asp	Ser	Gly	Val	Tyr	Ala	Val	Pro	Pro	Pro	Ala		
			405					410						415			
Glu	Arg	Glu	Ala	Pro	Ala	Glu	Gly	Lys	Arg	Leu	Ser	Ala	Ser	Ser	Thr		
			420					425					430				
Gly	Ser	Thr	Arg	Ser	Ser	Gln	Ser	Ala	Ser	Ser	Leu	Glu	Val	Ala	Gly		
		435					440					445					
Pro	Gly	Arg	Glu	Pro	Leu	Glu	Leu	Glu	Val	Ala	Val	Glu	Ala	Leu	Ala		
	450					455						460					
Arg	Leu	Gln	Gln	Gly	Val	Ser	Ala	Thr	Val	Ala	His	Leu	Leu	Asp	Leu		
465					470					475					480		
Ala	Gly	Ser	Ala	Gly	Ala	Thr	Gly	Ser	Trp	Arg	Ser	Pro	Ser	Glu	Pro		
			485					490						495			
Gln	Glu	Pro	Leu	Val	Gln	Asp	Leu	Gln	Ala	Ala	Val	Ala	Ala	Val	Gln		
		500						505					510				
Ser	Ala	Val	His	Glu	Leu	Leu	Glu	Phe	Ala	Arg	Ser	Ala	Val	Gly	Asn		
		515					520					525					
Ala	Ala	His	Thr	Ser	Asp	Arg	Ala	Leu	His	Ala	Lys	Leu	Ser	Arg	Gln		
		530				535					540						
Leu	Gln	Lys	Met	Glu	Asp	Val	His	Gln	Thr	Leu	Val	Ala	His	Gly	Gln		
545					550					555					560		
Ala	Leu	Asp	Ala	Gly	Arg	Gly	Gly	Ser	Gly	Ala	Thr	Leu	Glu	Asp	Leu		
			565					570						575			
Asp	Arg	Leu	Val	Ala	Cys	Ser	Arg	Ala	Val	Pro	Glu	Asp	Ala	Lys	Gln		
		580						585					590				
Leu	Ala	Ser	Phe	Leu	His	Gly	Asn	Ala	Ser	Leu	Leu	Phe	Arg	Arg	Thr		
		595					600					605					
Lys	Ala	Thr	Ala	Pro	Gly	Pro	Glu	Gly	Gly	Gly	Thr	Leu	His	Pro	Asn		
	610					615					620						
Pro	Thr	Asp	Lys	Thr	Ser	Ser	Ile	Gln	Ser	Arg	Pro	Leu	Pro	Ser	Pro		
625					630					635					640		
Pro	Lys	Phe	Thr	Ser	Gln	Asp	Ser	Pro	Asp	Gly	Gln	Tyr	Glu	Asn	Ser		
			645						650					655			

Glu Gly Gly Trp Met Glu Asp Tyr Asp Tyr Val His Leu Gln Gly Lys
 660 665 670
 Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Leu Glu Lys Gly Ser Ile
 675 680 685
 Thr Arg Gln Gly Lys Ser Gln Leu Glu Leu Gln Gln Leu Lys Gln Phe
 690 695 700
 Glu Arg Leu Glu Gln Glu Val Ser Arg Pro Ile Asp His Asp Leu Ala
 705 710 715 720
 Asn Trp Thr Pro Ala Gln Pro Leu Ala Pro Gly Arg Thr Gly Gly Leu
 725 730 735
 Gly Pro Ser Asp Arg Gln Leu Leu Leu Phe Tyr Leu Glu Gln Cys Glu
 740 745 750
 Ala Asn Leu Thr Thr Leu Thr Asn Ala Val Asp Ala Phe Phe Thr Ala
 755 760 765
 Val Ala Thr Asn Gln Pro Pro Lys Ile Phe Val Ala His Ser Lys Phe
 770 775 780
 Val Ile Leu Ser Ala His Lys Leu Val Phe Ile Gly Asp Thr Leu Ser
 785 790 795 800
 Arg Gln Ala Lys Ala Ala Asp Val Arg Ser Gln Val Thr His Tyr Ser
 805 810 815
 Asn Leu Leu Cys Asp Leu Leu Arg Gly Ile Val Ala Thr Thr Lys Ala
 820 825 830
 Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu
 835 840 845
 Arg Val Lys Glu Leu Gly His Ser Thr Gln Gln Phe Arg Arg Val Leu
 850 855 860
 Gly Gln Leu Ala Ala Ala
 865 870

<210> 353
 <211> 1050
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(1050)
 <223> n = g, a, c or t

<400> 353
 accgctcctc tcccgagggc acacaaccaa ccaaactggt gctctgaaac agcgccagtg 60
 tccagttctc tgaggagcac tgggtccatg aggtcttggn cgggcggtgc agctgcgctg 120
 gagctgctgg agtgtgcgtg gaaganactg tngagtggcg tggntcattc aagaacnggt 180
 gttccggang aaaaccagaa caagggtgggt tagatangga ataaaagggg ggccggatcg 240
 aataaatctt gaagggtctt gaantnaatc gtnccaaact ttggaacact tgggtcccggg 300
 ttttcaacag tgggtgggcga acatttttca tctagcagtg ggacccggcg gttaaataat 360
 ttctataaat atactgggcc ngtaataaat agattggaag ngttcacgag taatttttaa 420
 cacaacattt ccaaccattt gtggnggccg agcgaccgag agtaatantt aagaaaaacg 480
 ggttaccgtt ggaaaccccc tttggtgggt ggaanagtaa aaacaagacc catttatgag 540
 gacgcgggtn tatntaacca gccccaaaga anacaggttt aaaaaagttt catggcgacc 600
 cagctttntt ggtcgaagtt ntgaagacaa agaatttttt gnggaccgng cattaattta 660
 ttaattgag acggaaaaaag aggattttgt tncggacaca ggcgttaaaa aattaaatta 720
 ccgcgnataa aagatgaaaa tagttggtgc gccgaggncg aaaacgctcg gaaagtattc 780
 tcnggcagcg ccngtttttt ataccgcgaa aaaacgaaaag agtagataat tgtgctagcc 840
 ggtcgtcaan tagatgacga actaaaatat nataantatg gggtttaaca cgtgtgggtg 900
 agtaagagag gaatttataa aacagggtgt gggtttataca taaaccatta tatttttata 960
 atagcgaatg anaggtaaaa gagaccggcg nggagataat atctagtggg taccagattg 1020
 gtgaataata ggtactgggg taaattttgtt 1050

<210> 354
 <211> 698
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(698)
 <223> n = g, a, c or t

```

<400> 354
accgctcctc tcccagagggc acacacccac ccaaactggg gctctgaacc agcgccagggt      60
ccagttctct gaggagcact ggggtccatga gtctggncgg ccggtgcagc gcgcggagct      120
gctgcagggtg ctgcagagcc tggagtggcg tgctcatcca gaactgtgtt ctgcgagaaa      180
ccagcacagt ggtagatat gataaagcgg gcgctctgac taaatctgag gtcttgatac      240
tactgactg tcgtaagggn ggaattctgc ggccgcgtaa attcaaattc tgccctatan      300
gtgagtccgt attacaattc acttggggcg tcgttttaca acagtctgtg actgggaaaa      360
aacctggcgt taccacaca ttaatctgcc ttgcagcgac attccccctt ctgccagact      420
ggncgtaata gcgaagaggg gccgcgacac gatctgccct tcccaacagt tgcgcagagc      480
tatacggtac aggggganga tgtaaagcg gntgttacia acgtatntaa aagaggtaaa      540
gaaaagaacc gcagggtgtg taaaatncac ggaggcnctt anggtgtatt ggtgcgcggc      600
gatttgtttn cccaacggca agnttgggaa tacaatttaa attattgaaa caaagngtga      660
ccncgatgtg tgggtgtggaa naggaatat aggggtgt      698
  
```

<210> 355
 <211> 168
 <212> DNA
 <213> Homo sapiens

```

<400> 355
accgcctcct ctcccagagg cacacaccca cccaacctgg tgctctgaac cagcgccagg      60
tccagttctc tgaggagcac tgggtccatg agtctggcgg gccggtgcag cgcgcgagc      120
tgctgcagggt gctgcagagc ctggaggccg tgctcatcca gaccgtgt      168
  
```

<210> 356
 <211> 406
 <212> DNA
 <213> Homo sapiens

```

<400> 356
ctggtgggga tggggaccgc ctgcccaggg gtgagctgcc ttttgctcca cagccgacac      60
taaagacaat tcccaatcct gagtgggtgg cagagactcc tgcgatgccc gtctcaggta      120
gctgtggggc accagccac aagccgaggt tggctctcct aggagtgaga actgcccaag      180
ggctgcagaa acaggccacc cagctctatc tgggggctcc atcgggtgggt agggggacag      240
tgggggcagt tctgggcccc cccagccact gttcctgacc ccaagtcctg gtgactttct      300
gaggtgcccc ctcccatcca acctgccttg ctggccagcc ttgtggcttt gccagctgt      360
gtgtgtgagg gtggcatgcc cacctccagt ccagcccagg gcggta      406
  
```

<210> 357
 <211> 620
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(620)
 <223> n = g, a, c or t

```

<400> 357
ctggtgggga tggggaccgc ctgcccaggg gtgagctgcc ttttgctcca cagcggcact      60
aaagacaatt cccaatcctg agtgggtggc agagactcct gcgatgcccg tctcangtag      120
  
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ctgtggggca	ccagcccaca	agccgaggtt	ggntctccta	ggagtgagaa	ctgcccgaagg	180
gctgcagaaa	caggccaccc	agctctatct	gggggtccca	atcgggtgggt	agggggacag	240
tgggggcagt	tctggggccca	cccagcactg	ttcctgaacc	caagtccctgg	tgactttctg	300
aggtgcccac	tcccatacaa	actggcttgc	tggncagcct	tgtggctttg	nccagctgtg	360
tgtgtgaggg	tggcatgccc	anctccagtc	cagcccaggg	cggtagcagc	aaagcgtggc	420
atcgactcgg	nntttcttac	aaaaaattca	taaataatat	tcactaataa	tatactcgga	480
acatttgtcg	gggcttgggg	gcgttgcccc	cggggaagtc	cagtgttggg	gggcaaggcc	540
aggttggccc	tanacgaagg	ggggccaggg	gccgttgtgt	ttgggccccg	ggccctgggg	600
cgcnggtgct	tgacacaggg					620

<210> 358
 <211> 489
 <212> DNA
 <213> Homo sapiens

<400> 358						
ctggtgggga	tggggaccgc	ctgcccaggg	gtgagctgcc	ttttgctcca	cagccggcac	60
taaagacaat	tcccaatcct	gagtgggtgg	cagagactcc	tgcatgccc	gtctcaggta	120
gctgtggggc	accagcccac	aagccgaggt	tggctctcct	aggagtgaga	actgcccag	180
ggctgcagaa	acaggccacc	cagctctatc	tgggggtccc	atcgggtgggt	agggggacag	240
tgggggcagt	tctggggccca	cccagccact	gttcctgacc	ccaagtccctg	gtgactttct	300
gaggtgccc	ctcccataca	acctgccttg	ctggccagcc	ttgtggcttt	gcccagctgt	360
gtgtgtgagg	gtggcatgcc	cacctccagt	ccagcccagg	gcggtagcag	caaagcgtgg	420
catcgctcgc	gtttcttaca	aaaattcata	ataatattaa	taataatata	ctcgacattg	480
tcgggctgg						489

<210> 359
 <211> 448
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(448)
 <223> n = g, a, c or t

<400> 359						
ctggtgggga	tggggaccgc	ctgcccgggg	gtgagctgcc	ttttgctcca	cagccggcac	60
taaagacaat	tcccaatcct	gagtgggtgg	cagagactcc	tgcatgccc	gtctcaggta	120
gctgtggggc	accagcccac	aagccgaggt	tggctctcct	aggagtgaga	actgcccag	180
ggctgcagaa	acaggccacc	cagctctatc	tgggggtccc	atcgggtgggt	agggggacag	240
tgggggcagt	tctggggccca	cccagccact	gtncctgacc	ccaagtccctg	gtgactttct	300
gaggtgccc	ctccacatcc	aacctgcctt	gctggncagc	cttgntggca	taatgcccag	360
nctgatagat	gcgtgagggg	ggacatgccc	acctaccagt	accagaccca	gggcggatag	420
gcagcaaagn	acgtggcatc	gcctcggg				448

<210> 360
 <211> 317
 <212> DNA
 <213> Homo sapiens

<400> 360						
ctggtcagcg	gccggtcccc	aggtcccaac	gtggcagtc	acgccaaagg	cagcgtctac	60
atcggcggag	cccctgacgt	ggccacgctg	accgggggca	gattctcctc	gggcatcaca	120
ggctgtgtca	agaacctggg	gctgcaactg	gcccgaacccg	gcgccccgcc	cccacagccc	180
ctggacctgc	agaccggccc	aggccggggc	caacacacgc	cctgcccctt	cgtaggcacc	240
tgcttgcccc	acacggactc	ccgggccacg	ccccagcccc	acaatgtcga	gtatattatt	300
attaatatta	ttatgaa					317

<210> 361
 <211> 177
 <212> DNA
 <213> Homo sapiens

<400> 361
 ctgggtcagcg gccggtcccc aggtcccaac gtggcagtcac acgccaaggg cagcgtctac 60
 atcggcggag cccctgacgt ggccacgctg accgggggca gattctcctc gggcatcaca 120
 ggctgtgtca agaacctggt gctgcactcg gcccgaaccg gcgccccgcc cccacaa 177

<210> 362
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(396)
 <223> n = g, a, c or t

<400> 362
 ttgggtcagcg gccggtcccc aggtcccaac gtggcagtcac acgccaaggg cagcgtctac 60
 atcggcggag cccctgacgt ggccacgctg accgggggca gattctcctc gggcatcaca 120
 ggctgtgtca agaacctggt gctgcactcg gcccgaaccg gcgccccgcc cccacagccc 180
 ctggacctgc agcaccgcgc ccaggccggg gccaacacac gcccctgccc ctctagggca 240
 cctgcctgcc ccacacggac tcccggggca cgccccagcc cgacaatgtc gagtatatta 300
 ttattaatat tattatgaat ttttngtaag aaaccgaggc gatgccacgc ttangctgct 360
 accgccctgg gctggactgg aggtgggcat gccacc 396

<210> 363
 <211> 704
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(704)
 <223> n = g, a, c or t

<400> 363
 ctgggtcagcg gccggtcccc aggtcccaac gtggcagtcac acgccaaggg cagcgtctac 60
 atcggcggag cccctgacgt ggccacgctg accgggggca gattctcctc gggcatcaca 120
 ggctgtgtca agaacctggt gctgcactcg gcccgaaccg gcgccccgcc ccacagcccc 180
 tggacctgca gcaccgcgc caggccggg ccaacacacg cccctgcccc tcgtaggcac 240
 ctgcctgccc cacacggact cccggggccac gcccagccg acaatgtcga gtatattatt 300
 attaactatt attatgaact ttttgaaga aaccgaggcg atgccacgct ttgctgctac 360
 cggcctgggg ctggactgga ggtgggcatg ccaacacat cacggcacia cagctggcaa 420
 aagccaacaa agggccttgg gccaggcaag ggcacagggt gggactggga gtggggcacc 480
 ctangaaaag gtcaccagga gaactatggg ggggtncag aggaaaccac aggtagggga 540
 cctgggggtt tngggggccc cccaggaaaa cttgggggcgc ccacaaanat ngntaccacc 600
 accataaaca cacaagccca gaantgtgaa aacccccaac ccagagaaan tagcagagcc 660
 atcgaggaaa gcaccccaag atacacagca nnacccccatg agaa 704

<210> 364
 <211> 495
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(495)
 <223> n = g, a, c or t

<400> 364
 aagctgcctt ttgctccaca gccggcacta aagacaattc ccaatcctga gtgggtggca 60
 gagactccct ttggggcgat gcccgctctc caggtaaggc tgtggtgggc gggccaacac 120
 accaaaaagg ggcccccccc aaaaatagcc ccatacaaac aaaacacgng gggcccatat 180
 cccacgggaa aagggggggtt tatgggtggg ccattttccc ccagtttcca cccgtttaac 240
 aggcgnggca acacngcttt ttgggcgtgn ctggaacaac aacccttttg ggtctcctcc 300
 nccccaaaag taggggtgggc tgggcggccc cttttatgtg tggcccaana cnggagaaca 360
 caatactaaa taatcccaaa ctggtgtggg gtgtcccgcc caaatanac ccaccccaan 420
 tagatgcccc ttttaccctg ttttataaaa aatttttttt tccccctata tcttggcggg 480
 ggcgagggga tatgt 495

<210> 365
 <211> 13793
 <212> DNA
 <213> Homo sapiens

<400> 365
 gcccgagcgc agcgcgcgc agagcggcgc gggccgggccc atgggggtggc gggcgccggg 60
 cgcgctgctg ctggcgctgc tgctgcacgg gcgggtgctg gcgggtgaccc atgggctgag 120
 ggcatatcat ggcttgcttc tgccctgagga catagagacc gtcacagcaa gccaaatgcg 180
 ctggacacat tcgtaccttt ctgatgatga ggacatgctg gctgacagca tctcaggaga 240
 cgacctgggc agtggggacc tgggcagcgg ggacttccag atgggtttatt tccgagccct 300
 ggtgaatttc actcgctcca tcgagtacag cctcagctg gaggatgcag gctccagaga 360
 gtttcgagag gtgtccgagg ctgtggtaga cacgctggag tcggagtact tgaaaattcc 420
 cggagaccag gttgtcagtg tgggtgttcat caaggagctg gatggctggg tttttgtgga 480
 gctggtatgt ggctcggaag ggaatgcgga tggggctcag attcaggaga tgctgctcag 540
 ggtcatctcc agcggctctg tggcctccta cgtcacctct ccccgaggat tccagttccg 600
 acgcctgggc acagtgcctc agttcccaag agcctgcacg gaggccgagt ttgcctgcca 660
 cagctacaat gagtgtgtgg ccctggagta tcgctgtgac cggcgggccc actgcaggga 720
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 cctcgtggag acgacatctt taccgccccg gccagagaca accatcatgc gacagccacc 840
 agtcacccac gctcctcagc cctgtcttcc cggttccgtc agggccctgc cctgtgggccc 900
 ccaggaggcc gcatgccgca atgggcaact catccccaga gactacctct gcgacgggaca 960
 ggaggactgc gaggacggca gcgatgagct agactgtggc cccccgccac cctgtgagcc 1020
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acccggcgcc	ccgccccccac	agccccctgga	cctgcagcac	cgcgcccagg	ccggggccaa	13200
cacacgcccc	tgccccctcg	aggcacctgc	ctgccccaca	cggactcccc	ggccacgccc	13260
cagcccagaca	atgtcgagta	tattattatt	aatattatta	tgaatttttg	taagaaaccg	13320

```

agcgatgccca cgctttgctc gtaccgccct gggctggact ggaggtgggc atgccaccct 13380
cacacacaca gctgggcaaa gccacaaggc tggccagcaa ggcaggttgg atgggagtgg 13440
gcacctcaga aagtcaccag gacttggggg caggaacagt ggctgggtgg gcccagaact 13500
gccccactg tccccctacc caccgatgga gccccagat agagctgggt ggctgtttc 13560
tgcagccctt gggcagttct cactcctagg agagccaacc tcggcttgtg ggctggtgcc 13620
ccacagctac ctgagacggg catcgacagga gtctctgcca cccactcagg attgggaatt 13680
gtcttttagtg ccggctgtgg agcaaaaggc agctcacc cc tgggcaggcg gtcccatcc 13740
ccaccagctc gtttttcagc acccccaccc acctccaccc agcccctggc ccc 13793

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<210> 366
<211> 4393
<212> PRT
<213> Homo sapiens

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```

<400> 366
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1      5      10      15
Gly Arg Leu Leu Ala Val Thr His Gly Leu Arg Ala Tyr Asp Gly Leu
20     25     30
Ser Leu Pro Glu Asp Ile Glu Thr Val Thr Ala Ser Gln Met Arg Trp
35     40     45
Thr His Ser Tyr Leu Ser Asp Asp Glu Asp Met Leu Ala Asp Ser Ile
50     55     60
Ser Gly Asp Asp Leu Gly Ser Gly Asp Leu Gly Ser Gly Asp Phe Gln
65     70     75     80
Met Val Tyr Phe Arg Ala Leu Val Asn Phe Thr Arg Ser Ile Glu Tyr
85     90     95
Ser Pro Gln Leu Glu Asp Ala Gly Ser Arg Glu Phe Arg Glu Val Ser
100    105    110
Glu Ala Val Val Asp Thr Leu Glu Ser Glu Tyr Leu Lys Ile Pro Gly
115    120    125
Asp Gln Val Val Ser Val Val Phe Ile Lys Glu Leu Asp Gly Trp Val
130    135    140
Phe Val Glu Leu Asp Val Gly Ser Glu Gly Asn Ala Asp Gly Ala Gln
145    150    155    160
Ile Gln Glu Met Leu Leu Arg Val Ile Ser Ser Gly Ser Val Ala Ser
165    170    175
Tyr Val Thr Ser Pro Gln Gly Phe Gln Phe Arg Arg Leu Gly Thr Val
180    185    190
Pro Gln Phe Pro Arg Ala Cys Thr Glu Ala Glu Phe Ala Cys His Ser
195    200    205
Tyr Asn Glu Cys Val Ala Leu Glu Tyr Arg Cys Asp Arg Arg Pro Asp
210    215    220
Cys Arg Asp Met Ser Asp Glu Leu Asn Cys Glu Glu Pro Val Leu Gly
225    230    235    240
Ile Ser Pro Thr Phe Ser Leu Leu Val Glu Thr Thr Ser Leu Pro Pro
245    250    255
Arg Pro Glu Thr Thr Ile Met Arg Gln Pro Pro Val Thr His Ala Pro
260    265    270
Gln Pro Leu Leu Pro Gly Ser Val Arg Pro Leu Pro Cys Gly Pro Gln
275    280    285
Glu Ala Ala Cys Arg Asn Gly His Cys Ile Pro Arg Asp Tyr Leu Cys
290    295    300
Asp Gly Gln Glu Asp Cys Glu Asp Gly Ser Asp Glu Leu Asp Cys Gly
305    310    315    320
Pro Pro Pro Pro Cys Glu Pro Asn Glu Phe Pro Cys Gly Asn Gly His
325    330    335
Cys Ala Leu Lys Leu Trp Arg Cys Asp Gly Asp Phe Asp Cys Glu Asp
340    345    350
Arg Thr Asp Glu Ala Asn Cys Pro Thr Lys Arg Pro Glu Glu Val Cys
355    360    365

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Thr	Gly	Arg	Arg	Cys	Glu	Ser	Cys	Ala	Pro	Gly	Tyr	Glu	Gly	Asn	Pro	850	855	860
Ile	Gln	Pro	Gly	Gly	Lys	Cys	Arg	Pro	Val	Asn	Gln	Glu	Ile	Val	Arg	865	870	875
Cys	Asp	Glu	Arg	Gly	Ser	Met	Gly	Thr	Ser	Gly	Glu	Ala	Cys	Arg	Cys	885	890	895
Lys	Asn	Asn	Val	Gly	Arg	Leu	Cys	Asn	Glu	Cys	Ala	Asp	Arg	Ser		900	905	910
Phe	His	Leu	Ser	Thr	Arg	Asn	Pro	Asp	Gly	Cys	Leu	Lys	Cys	Phe	Cys	915	920	925
Met	Gly	Val	Ser	Arg	His	Cys	Thr	Ser	Ser	Ser	Trp	Ser	Arg	Ala	Gln	930	935	940
Leu	His	Gly	Ala	Ser	Glu	Glu	Pro	Gly	His	Phe	Ser	Leu	Thr	Asn	Ala	945	950	955
Ala	Ser	Thr	His	Thr	Asn	Glu	Gly	Ile	Phe	Ser	Pro	Thr	Pro	Gly		965	970	975
Glu	Leu	Gly	Phe	Ser	Ser	Phe	His	Arg	Leu	Leu	Ser	Gly	Pro	Tyr	Phe	980	985	990
Trp	Ser	Leu	Pro	Ser	Arg	Phe	Leu	Gly	Asp	Lys	Val	Thr	Ser	Tyr	Gly	995	1000	1005
Gly	Glu	Leu	Arg	Phe	Thr	Val	Thr	Gln	Arg	Ser	Gln	Pro	Gly	Ser	Thr	1010	1015	1020
Pro	Leu	His	Gly	Gln	Pro	Leu	Val	Val	Leu	Gln	Gly	Asn	Asn	Ile	Ile	1025	1030	1035
Leu	Glu	His	His	Val	Ala	Gln	Glu	Pro	Ser	Pro	Gly	Gln	Pro	Ser	Thr	1045	1050	1055
Phe	Ile	Val	Pro	Phe	Arg	Glu	Gln	Ala	Trp	Gln	Arg	Pro	Asp	Gly	Gln	1060	1065	1070
Pro	Ala	Thr	Arg	Glu	His	Leu	Leu	Met	Ala	Leu	Ala	Gly	Ile	Asp	Thr	1075	1080	1085
Leu	Leu	Ile	Arg	Ala	Ser	Tyr	Ala	Gln	Gln	Pro	Ala	Glu	Ser	Arg	Val	1090	1095	1100
Ser	Gly	Ile	Ser	Met	Asp	Val	Ala	Val	Pro	Glu	Glu	Thr	Gly	Gln	Asp	1105	1110	1115
Pro	Ala	Leu	Glu	Val	Glu	Gln	Cys	Ser	Cys	Pro	Pro	Gly	Tyr	Arg	Gly	1125	1130	1135
Pro	Ser	Cys	Gln	Asp	Cys	Asp	Thr	Gly	Tyr	Thr	Arg	Thr	Pro	Ser	Gly	1140	1145	1150
Leu	Tyr	Leu	Gly	Thr	Cys	Glu	Arg	Cys	Ser	Cys	His	Gly	His	Ser	Glu	1155	1160	1165
Ala	Cys	Glu	Pro	Glu	Thr	Gly	Ala	Cys	Gln	Gly	Cys	Gln	His	His	Thr	1170	1175	1180
Glu	Gly	Pro	Arg	Cys	Glu	Gln	Cys	Gln	Pro	Gly	Tyr	Tyr	Gly	Asp	Ala	1185	1190	1195
Gln	Arg	Gly	Thr	Pro	Gln	Asp	Cys	Gln	Leu	Cys	Pro	Cys	Tyr	Gly	Asp	1205	1210	1215
Pro	Ala	Ala	Gly	Gln	Ala	Ala	His	Thr	Cys	Phe	Leu	Asp	Thr	Asp	Gly	1220	1225	1230
His	Pro	Thr	Cys	Asp	Ala	Cys	Ser	Pro	Gly	His	Ser	Gly	Arg	His	Cys	1235	1240	1245
Glu	Arg	Cys	Ala	Pro	Gly	Tyr	Tyr	Gly	Asn	Pro	Ser	Gln	Gly	Gln	Pro	1250	1255	1260
Cys	Gln	Arg	Asp	Ser	Gln	Val	Pro	Gly	Pro	Ile	Gly	Cys	Asn	Cys	Asp	1265	1270	1275
Pro	Gln	Gly	Ser	Val	Ser	Ser	Gln	Cys	Asp	Ala	Ala	Gly	Gln	Cys	Gln	1285	1290	1295
Cys	Lys	Ala	Gln	Val	Glu	Gly	Leu	Thr	Cys	Ser	His	Cys	Arg	Pro	His	1300	1305	1310
His	Phe	His	Leu	Ser	Ala	Ser	Asn	Pro	Asp	Gly	Cys	Leu	Pro	Cys	Phe	1315	1320	1325

Cys Met Gly Ile Thr Gln Gln Cys Ala Ser Ser Ala Tyr Thr Arg His
1330 1335 1340
Leu Ile Ser Thr His Phe Ala Pro Gly Asp Phe Gln Gly Phe Ala Leu
1345 1350 1355 1360
Val Asn Pro Gln Arg Asn Ser Arg Leu Thr Gly Glu Phe Thr Val Glu
1365 1370 1375
Pro Val Pro Glu Gly Ala Gln Leu Ser Phe Gly Asn Phe Ala Gln Leu
1380 1385 1390
Gly His Glu Ser Phe Tyr Trp Gln Leu Pro Glu Thr Tyr Gln Gly Asp
1395 1400 1405
Lys Val Ala Ala Tyr Gly Gly Lys Leu Arg Tyr Thr Leu Ser Tyr Thr
1410 1415 1420
Ala Gly Pro Gln Gly Ser Pro Leu Ser Asp Pro Asp Val Gln Ile Thr
1425 1430 1435 1440
Gly Asn Asn Ile Met Leu Val Ala Ser Gln Pro Ala Leu Gln Gly Pro
1445 1450 1455
Glu Arg Arg Ser Tyr Glu Ile Met Phe Arg Glu Glu Phe Trp Arg Arg
1460 1465 1470
Pro Asp Gly Gln Pro Ala Thr Arg Glu His Leu Leu Met Ala Leu Ala
1475 1480 1485
Asp Leu Asp Glu Leu Leu Ile Arg Ala Thr Phe Ser Ser Val Pro Leu
1490 1495 1500
Val Ala Ser Ile Ser Ala Val Ser Leu Glu Val Ala Gln Pro Gly Pro
1505 1510 1515 1520
Ser Asn Arg Pro Arg Ala Leu Glu Val Glu Glu Cys Arg Cys Pro Pro
1525 1530 1535
Gly Tyr Ile Gly Leu Ser Cys Gln Asp Cys Ala Pro Gly Tyr Thr Arg
1540 1545 1550
Thr Gly Ser Gly Leu Tyr Leu Gly His Cys Glu Leu Cys Glu Cys Asn
1555 1560 1565
Gly His Ser Asp Leu Cys His Pro Glu Thr Gly Ala Cys Ser Gln Cys
1570 1575 1580
Gln His Asn Ala Ala Gly Glu Phe Cys Glu Leu Cys Ala Pro Gly Tyr
1585 1590 1595 1600
Tyr Gly Asp Ala Thr Ala Gly Thr Pro Glu Asp Cys Gln Pro Cys Ala
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Cys Pro Leu Thr Asn Pro Glu Asn Met Phe Ser Arg Thr Cys Glu Ser
1620 1625 1630
Leu Gly Ala Gly Gly Tyr Arg Cys Thr Ala Cys Glu Pro Gly Tyr Thr
1635 1640 1645
Gly Gln Tyr Cys Glu Gln Cys Gly Pro Gly Tyr Val Gly Asn Pro Ser
1650 1655 1660
Val Gln Gly Gly Gln Cys Leu Pro Glu Thr Asn Gln Ala Pro Leu Val
1665 1670 1675 1680
Val Glu Val His Pro Ala Arg Ser Ile Val Pro Gln Gly Gly Ser His
1685 1690 1695
Ser Leu Arg Cys Gln Val Ser Gly Arg Gly Pro His Tyr Phe Tyr Trp
1700 1705 1710
Ser Arg Glu Asp Gly Arg Pro Val Pro Ser Gly Thr Gln Gln Arg His
1715 1720 1725
Gln Gly Ser Glu Leu His Phe Pro Ser Val Gln Pro Ser Asp Ala Gly
1730 1735 1740
Val Tyr Ile Cys Thr Cys Arg Asn Leu His Arg Ser Asn Thr Ser Arg
1745 1750 1755 1760
Ala Glu Leu Leu Val Thr Glu Ala Pro Ser Lys Pro Ile Thr Val Thr
1765 1770 1775
Val Glu Glu Gln Arg Ser Gln Ser Val Arg Pro Gly Ala Asp Val Thr
1780 1785 1790
Phe Ile Cys Thr Ala Lys Ser Lys Ser Pro Ala Tyr Thr Leu Val Trp
1795 1800 1805

Thr Arg Leu His Asn Gly Lys Leu Pro Thr Arg Ala Met Asp Phe Asn
 1810 1815 1820
 Gly Ile Leu Thr Ile Arg Asn Val Gln Leu Ser Asp Ala Gly Thr Tyr
 1825 1830 1835 1840
 Val Cys Thr Gly Ser Asn Met Phe Ala Met Asp Gln Gly Thr Ala Thr
 1845 1850 1855
 Leu His Val Gln Ala Ser Gly Thr Leu Ser Ala Pro Val Val Ser Ile
 1860 1865 1870
 His Pro Pro Gln Leu Thr Val Gln Pro Gly Gln Leu Ala Glu Phe Arg
 1875 1880 1885
 Cys Ser Ala Thr Gly Ser Pro Thr Pro Thr Leu Glu Trp Thr Gly Gly
 1890 1895 1900
 Pro Gly Gly Gln Leu Pro Ala Lys Ala Gln Ile His Gly Gly Ile Leu
 1905 1910 1915 1920
 Arg Leu Pro Ala Val Glu Pro Thr Asp Gln Ala Gln Tyr Leu Cys Arg
 1925 1930 1935
 Ala His Ser Ser Ala Gly Gln Gln Val Ala Arg Ala Val Leu His Val
 1940 1945 1950
 His Gly Gly Gly Gly Pro Arg Val Gln Val Ser Pro Glu Arg Thr Gln
 1955 1960 1965
 Val His Ala Gly Arg Thr Val Arg Leu Tyr Cys Arg Ala Ala Gly Val
 1970 1975 1980
 Pro Ser Ala Thr Ile Thr Trp Arg Lys Glu Gly Gly Ser Leu Pro Pro
 1985 1990 1995 2000
 Gln Ala Arg Ser Glu Arg Thr Asp Ile Ala Thr Leu Leu Ile Pro Ala
 2005 2010 2015
 Ile Thr Thr Ala Asp Ala Gly Phe Tyr Leu Cys Val Ala Thr Ser Pro
 2020 2025 2030
 Ala Gly Thr Ala Gln Ala Arg Ile Gln Val Val Val Leu Ser Ala Ser
 2035 2040 2045
 Asp Ala Ser Gln Pro Pro Val Lys Ile Glu Ser Ser Ser Pro Ser Val
 2050 2055 2060
 Thr Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala Gly Ser Ala
 2065 2070 2075 2080
 His Ala Gln Val Thr Trp Tyr Arg Arg Gly Gly Ser Leu Pro His His
 2085 2090 2095
 Thr Gln Val His Gly Ser Arg Leu Arg Leu Pro Gln Val Ser Pro Ala
 2100 2105 2110
 Asp Ser Gly Glu Tyr Val Cys Arg Val Glu Asn Gly Ser Gly Pro Lys
 2115 2120 2125
 Glu Ala Ser Ile Thr Val Ser Val Leu His Gly Thr His Ser Gly Pro
 2130 2135 2140
 Ser Tyr Thr Pro Val Pro Gly Ser Thr Arg Pro Ile Arg Ile Glu Pro
 2145 2150 2155 2160
 Ser Ser Ser His Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val
 2165 2170 2175
 Val Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly
 2180 2185 2190
 Ser Leu Pro Ala Arg His Gln Thr His Gly Ser Leu Leu Arg Leu His
 2195 2200 2205
 Gln Val Thr Pro Ala Asp Ser Gly Glu Tyr Val Cys His Val Val Gly
 2210 2215 2220
 Thr Ser Gly Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Ala Ser
 2225 2230 2235 2240
 Val Ile Pro Gly Pro Ile Pro Pro Val Arg Ile Glu Ser Ser Ser Ser
 2245 2250 2255
 Thr Val Ala Glu Gly Gln Thr Leu Asp Leu Ser Cys Val Val Ala Gly
 2260 2265 2270
 Gln Ala His Ala Gln Val Thr Trp Tyr Lys Arg Gly Gly Ser Leu Pro
 2275 2280 2285

Ala Arg His Gln Val Arg Gly Ser Arg Leu Tyr Ile Phe Gln Ala Ser
 2290 2295 2300
 Pro Ala Asp Ala Gly Gln Tyr Val Cys Arg Ala Ser Asn Gly Met Glu
 2305 2310 2315 2320
 Ala Ser Ile Thr Val Thr Val Thr Gly Thr Gln Gly Ala Asn Leu Ala
 2325 2330 2335
 Tyr Pro Ala Gly Ser Thr Gln Pro Ile Arg Ile Glu Pro Ser Ser Ser
 2340 2345 2350
 Gln Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Pro Gly
 2355 2360 2365
 Gln Ser His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro
 2370 2375 2380
 Val Arg His Gln Thr His Gly Ser Leu Leu Arg Leu Tyr Gln Ala Ser
 2385 2390 2395 2400
 Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Leu Gly Ser Ser Val
 2405 2410 2415
 Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Pro Ala Gly Ser Val
 2420 2425 2430
 Pro Ala Leu Gly Val Thr Pro Thr Val Arg Ile Glu Ser Ser Ser Ser
 2435 2440 2445
 Gln Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Leu Val Ala Gly
 2450 2455 2460
 Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro
 2465 2470 2475 2480
 Ala Arg His Gln Val His Gly Ser Arg Leu Arg Leu Leu Gln Val Thr
 2485 2490 2495
 Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Val Gly Ser Ser Gly
 2500 2505 2510
 Thr Gln Glu Ala Ser Val Leu Val Thr Ile Gln Gln Arg Leu Ser Gly
 2515 2520 2525
 Ser His Ser Gln Gly Val Ala Tyr Pro Val Arg Ile Glu Ser Ser Ser
 2530 2535 2540
 Ala Ser Leu Ala Asn Gly His Thr Leu Asp Leu Asn Cys Leu Val Ala
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 Ser Gln Ala Pro His Thr Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu
 2565 2570 2575
 Pro Ser Arg His Gln Ile Val Gly Ser Arg Leu Arg Ile Pro Gln Val
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 Thr Pro Ala Asp Ser Gly Glu Tyr Val Cys His Val Ser Asn Gly Ala
 2595 2600 2605
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 2625 2630 2635 2640
 Pro Thr Val Val Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala
 2645 2650 2655
 Arg Gln Pro Gln Ala Ile Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu
 2660 2665 2670
 Pro Ser Arg His Gln Thr His Gly Ser His Leu Arg Leu His Gln Met
 2675 2680 2685
 Ser Val Ala Asp Ser Gly Glu Tyr Val Cys Arg Ala Asn Asn Asn Ile
 2690 2695 2700
 Asp Ala Leu Glu Ala Ser Ile Val Ile Ser Val Ser Pro Ser Ala Gly
 2705 2710 2715 2720
 Ser Pro Ser Ala Pro Gly Ser Ser Met Pro Ile Arg Ile Glu Ser Ser
 2725 2730 2735
 Ser Ser His Val Ala Glu Gly Glu Thr Leu Asp Leu Asn Cys Val Val
 2740 2745 2750
 Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser
 2755 2760 2765

Leu Pro Ser Tyr His Gln Thr Arg Gly Ser Arg Leu Arg Leu His His
 2770 2775 2780
 Val Ser Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Met Gly Ser
 2785 2790 2795 2800
 Ser Gly Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Ala Ser Gly
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 Ile Glu Pro Ser Ser Ser Arg Val Ala Glu Gly Gln Thr Leu Asp Leu
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 Lys Cys Val Val Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys
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 Arg Gly Gly Asn Leu Pro Ala Arg His Gln Val His Gly Pro Leu Leu
 2865 2870 2875 2880
 Arg Leu Asn Gln Val Ser Pro Ala Asp Ser Gly Glu Tyr Ser Cys Gln
 2885 2890 2895
 Val Thr Gly Ser Ser Gly Thr Leu Glu Ala Ser Val Leu Val Thr Ile
 2900 2905 2910
 Glu Pro Ser Ser Pro Gly Pro Ile Pro Ala Pro Gly Leu Ala Gln Pro
 2915 2920 2925
 Ile Tyr Ile Glu Ala Ser Ser Ser His Val Thr Glu Gly Gln Thr Leu
 2930 2935 2940
 Asp Leu Asn Cys Val Val Pro Gly Gln Ala His Ala Gln Val Thr Trp
 2945 2950 2955 2960
 Tyr Lys Arg Gly Gly Ser Leu Pro Ala Arg His Gln Thr His Gly Ser
 2965 2970 2975
 Gln Leu Arg Leu His His Val Ser Pro Ala Asp Ser Gly Glu Tyr Val
 2980 2985 2990
 Cys Arg Ala Ala Gly Gly Pro Gly Pro Glu Gln Glu Ala Ser Phe Thr
 2995 3000 3005
 Val Thr Val Pro Pro Ser Glu Gly Ser Ser Tyr Arg Leu Arg Ser Pro
 3010 3015 3020
 Val Ile Ser Ile Asp Pro Pro Ser Ser Thr Val Gln Gln Gly Gln Asp
 3025 3030 3035 3040
 Ala Ser Phe Lys Cys Leu Ile His Asp Gly Ala Ala Pro Ile Ser Leu
 3045 3050 3055
 Glu Trp Lys Thr Arg Asn Gln Glu Leu Glu Asp Asn Val His Ile Ser
 3060 3065 3070
 Pro Asn Gly Ser Ile Ile Thr Ile Val Gly Thr Arg Pro Ser Asn His
 3075 3080 3085
 Gly Thr Tyr Arg Cys Val Ala Ser Asn Ala Tyr Gly Val Ala Gln Ser
 3090 3095 3100
 Val Val Asn Leu Ser Val His Gly Pro Pro Thr Val Ser Val Leu Pro
 3105 3110 3115 3120
 Glu Gly Pro Val Trp Val Lys Val Gly Lys Ala Val Thr Leu Glu Cys
 3125 3130 3135
 Val Ser Ala Gly Glu Pro Arg Ser Ser Ala Arg Trp Thr Arg Ile Ser
 3140 3145 3150
 Ser Thr Pro Ala Lys Leu Glu Gln Arg Thr Tyr Gly Leu Met Asp Ser
 3155 3160 3165
 His Thr Val Leu Gln Ile Ser Ser Ala Lys Pro Ser Asp Ala Gly Thr
 3170 3175 3180
 Tyr Val Cys Leu Ala Gln Asn Ala Leu Gly Thr Ala Gln Lys Gln Val
 3185 3190 3195 3200
 Glu Val Ile Val Asp Thr Gly Ala Met Ala Pro Gly Ala Pro Gln Val
 3205 3210 3215
 Gln Ala Glu Glu Ala Glu Leu Thr Val Glu Ala Gly His Thr Ala Thr
 3220 3225 3230
 Leu Arg Cys Ser Ala Thr Gly Ser Pro Ala Arg Thr Ile His Trp Ser
 3235 3240 3245

Lys	Leu	Arg	Ser	Pro	Leu	Pro	Trp	Gln	His	Arg	Leu	Glu	Gly	Asp	Thr	3250	3255	3260	
Leu	Ile	Ile	Pro	Arg	Val	Ala	Gln	Gln	Asp	Ser	Gly	Gln	Tyr	Ile	Cys	3265	3270	3275	3280
Asn	Ala	Thr	Ser	Pro	Ala	Gly	His	Ala	Glu	Ala	Thr	Ile	Ile	Leu	His	3285	3290	3295	
Val	Glu	Ser	Pro	Pro	Tyr	Ala	Thr	Thr	Val	Pro	Glu	His	Ala	Ser	Val	3300	3305	3310	
Gln	Ala	Gly	Glu	Thr	Val	Gln	Leu	Gln	Cys	Leu	Ala	His	Gly	Thr	Pro	3315	3320	3325	
Pro	Leu	Thr	Phe	Gln	Trp	Ser	Arg	Val	Gly	Ser	Ser	Leu	Pro	Gly	Arg	3330	3335	3340	
Ala	Thr	Ala	Arg	Asn	Glu	Leu	Leu	His	Phe	Glu	Arg	Ala	Ala	Pro	Glu	3345	3350	3355	3360
Asp	Ser	Gly	Arg	Tyr	Arg	Cys	Arg	Val	Thr	Asn	Lys	Val	Gly	Ser	Ala	3365	3370	3375	
Glu	Ala	Phe	Ala	Gln	Leu	Leu	Val	Gln	Gly	Pro	Pro	Gly	Ser	Leu	Pro	3380	3385	3390	
Ala	Thr	Ser	Ile	Pro	Ala	Gly	Ser	Thr	Pro	Thr	Val	Gln	Val	Thr	Pro	3395	3400	3405	
Gln	Leu	Glu	Thr	Lys	Ser	Ile	Gly	Ala	Ser	Val	Glu	Phe	His	Cys	Ala	3410	3415	3420	
Val	Pro	Ser	Asp	Arg	Gly	Thr	Gln	Leu	Arg	Trp	Phe	Lys	Glu	Gly	Gly	3425	3430	3435	3440
Gln	Leu	Pro	Pro	Gly	His	Ser	Val	Gln	Asp	Gly	Val	Leu	Arg	Ile	Gln	3445	3450	3455	
Asn	Leu	Asp	Gln	Ser	Cys	Gln	Gly	Thr	Tyr	Ile	Cys	Gln	Ala	His	Gly	3460	3465	3470	
Pro	Trp	Gly	Lys	Ala	Gln	Ala	Ser	Ala	Gln	Leu	Val	Ile	Gln	Ala	Leu	3475	3480	3485	
Pro	Ser	Val	Leu	Ile	Asn	Ile	Arg	Thr	Ser	Val	Gln	Thr	Val	Val	Val	3490	3495	3500	
Gly	His	Ala	Val	Glu	Phe	Glu	Cys	Leu	Ala	Leu	Gly	Asp	Pro	Lys	Pro	3505	3510	3515	3520
Gln	Val	Thr	Trp	Ser	Lys	Val	Gly	Gly	His	Leu	Arg	Pro	Gly	Ile	Val	3525	3530	3535	
Gln	Ser	Gly	Gly	Val	Val	Arg	Ile	Ala	His	Val	Glu	Leu	Ala	Asp	Ala	3540	3545	3550	
Gly	Gln	Tyr	Arg	Cys	Thr	Ala	Thr	Asn	Ala	Ala	Gly	Thr	Thr	Gln	Ser	3555	3560	3565	
His	Val	Leu	Leu	Leu	Val	Gln	Ala	Leu	Pro	Gln	Ile	Ser	Met	Pro	Gln	3570	3575	3580	
Glu	Val	Arg	Val	Pro	Ala	Gly	Ser	Ala	Ala	Val	Phe	Pro	Cys	Ile	Ala	3585	3590	3595	3600
Ser	Gly	Tyr	Pro	Thr	Pro	Asp	Ile	Ser	Trp	Ser	Lys	Leu	Asp	Gly	Ser	3605	3610	3615	
Leu	Pro	Pro	Asp	Ser	Arg	Leu	Glu	Asn	Asn	Met	Leu	Met	Leu	Pro	Ser	3620	3625	3630	
Val	Gln	Pro	Gln	Asp	Ala	Gly	Thr	Tyr	Val	Cys	Thr	Ala	Thr	Asn	Arg	3635	3640	3645	
Gln	Gly	Lys	Val	Lys	Ala	Phe	Ala	His	Leu	Gln	Val	Pro	Glu	Arg	Val	3650	3655	3660	
Val	Pro	Tyr	Phe	Thr	Gln	Thr	Pro	Tyr	Ser	Phe	Leu	Pro	Leu	Pro	Thr	3665	3670	3675	3680
Ile	Lys	Asp	Ala	Tyr	Arg	Lys	Phe	Glu	Ile	Lys	Ile	Thr	Phe	Arg	Pro	3685	3690	3695	
Asp	Ser	Ala	Asp	Gly	Met	Leu	Leu	Tyr	Asn	Gly	Gln	Lys	Arg	Val	Pro	3700	3705	3710	
Gly	Ser	Pro	Thr	Asn	Leu	Ala	Asn	Arg	Gln	Pro	Asp	Phe	Ile	Ser	Phe	3715	3720	3725	

Gly Leu Val Gly Gly Arg Pro Glu Phe Arg Phe Asp Ala Gly Ser Gly
 3730 3735 3740
 Met Ala Thr Ile Arg His Pro Thr Pro Leu Ala Leu Gly His Phe His
 3745 3750 3755 3760
 Thr Val Thr Leu Leu Arg Ser Leu Thr Gln Gly Ser Leu Ile Val Gly
 3765 3770 3775
 Asp Leu Ala Pro Val Asn Gly Thr Ser Gln Gly Lys Phe Gln Gly Leu
 3780 3785 3790
 Asp Leu Asn Glu Glu Leu Tyr Leu Gly Gly Tyr Pro Asp Tyr Gly Ala
 3795 3800 3805
 Ile Pro Lys Ala Gly Leu Ser Ser Gly Phe Ile Gly Cys Val Arg Glu
 3810 3815 3820
 Leu Arg Ile Gln Gly Glu Glu Ile Val Phe His Asp Leu Asn Leu Thr
 3825 3830 3835 3840
 Ala His Gly Ile Ser His Cys Pro Thr Cys Arg Asp Arg Pro Cys Gln
 3845 3850 3855
 Asn Gly Gly Gln Cys His Asp Ser Glu Ser Ser Ser Tyr Val Cys Val
 3860 3865 3870
 Cys Pro Ala Gly Phe Thr Gly Ser Arg Cys Glu His Ser Gln Ala Leu
 3875 3880 3885
 His Cys His Pro Glu Ala Cys Gly Pro Asp Ala Thr Cys Val Asn Arg
 3890 3895 3900
 Pro Asp Gly Arg Gly Tyr Thr Cys Arg Cys His Leu Gly Arg Ser Gly
 3905 3910 3915 3920
 Leu Arg Cys Glu Glu Gly Val Thr Val Thr Thr Pro Ser Leu Ser Gly
 3925 3930 3935
 Ala Gly Ser Tyr Leu Ala Leu Pro Ala Leu Thr Asn Thr His His Glu
 3940 3945 3950
 Leu Arg Leu Asp Val Glu Phe Lys Pro Leu Ala Pro Asp Gly Val Leu
 3955 3960 3965
 Leu Phe Ser Gly Gly Lys Ser Gly Pro Val Glu Asp Phe Val Ser Leu
 3970 3975 3980
 Ala Met Val Gly Gly His Leu Glu Phe Arg Tyr Glu Leu Gly Ser Gly
 3985 3990 3995 4000
 Leu Ala Val Leu Arg Thr Ala Glu Pro Leu Ala Leu Gly Arg Trp His
 4005 4010 4015
 Arg Val Ser Ala Glu Arg Leu Asn Lys Asp Gly Ser Leu Arg Val Asn
 4020 4025 4030
 Gly Gly Arg Pro Val Leu Arg Ser Ser Pro Gly Lys Ser Gln Gly Leu
 4035 4040 4045
 Asn Leu His Thr Leu Leu Tyr Leu Gly Gly Val Glu Pro Ser Val Pro
 4050 4055 4060
 Leu Ser Pro Ala Thr Asn Met Ser Ala His Phe Arg Gly Cys Val Gly
 4065 4070 4075 4080
 Glu Val Ser Val Asn Gly Lys Arg Leu Asp Leu Thr Tyr Ser Phe Leu
 4085 4090 4095
 Gly Ser Gln Gly Ile Gly Gln Cys Tyr Asp Ser Ser Pro Cys Glu Arg
 4100 4105 4110
 Gln Pro Cys Gln His Gly Ala Thr Cys Met Pro Ala Gly Glu Tyr Glu
 4115 4120 4125
 Phe Gln Cys Leu Cys Arg Asp Gly Ile Lys Gly Asp Leu Cys Glu His
 4130 4135 4140
 Glu Glu Asn Pro Cys Gln Leu Arg Glu Pro Cys Leu His Gly Gly Thr
 4145 4150 4155 4160
 Cys Gln Gly Thr Arg Cys Leu Cys Leu Pro Gly Phe Ser Gly Pro Arg
 4165 4170 4175
 Cys Gln Gln Gly Ser Gly His Gly Ile Ala Glu Ser Asp Trp His Leu
 4180 4185 4190
 Glu Gly Ser Gly Gly Asn Asp Ala Pro Gly Gln Tyr Gly Ala Tyr Phe
 4195 4200 4205

His Asp Asp Gly Phe Leu Ala Phe Pro Gly His Val Phe Ser Arg Ser
 4210 4215 4220
 Leu Pro Glu Val Pro Glu Thr Ile Glu Leu Glu Val Arg Thr Ser Thr
 4225 4230 4235 4240
 Ala Ser Gly Leu Leu Leu Trp Gln Gly Val Glu Val Gly Glu Ala Gly
 4245 4250 4255
 Gln Gly Lys Asp Phe Ile Ser Leu Gly Leu Gln Asp Gly His Leu Val
 4260 4265 4270
 Phe Arg Tyr Gln Leu Gly Ser Gly Glu Ala Arg Leu Val Ser Glu Asp
 4275 4280 4285
 Pro Ile Asn Asp Gly Glu Trp His Arg Val Thr Ala Leu Arg Glu Gly
 4290 4295 4300
 Arg Arg Gly Ser Ile Gln Val Asp Gly Glu Glu Leu Val Ser Gly Arg
 4305 4310 4315 4320
 Ser Pro Gly Pro Asn Val Ala Val Asn Ala Lys Gly Ser Ile Tyr Ile
 4325 4330 4335
 Gly Gly Ala Pro Asp Val Ala Thr Leu Thr Gly Gly Arg Phe Ser Ser
 4340 4345 4350
 Gly Ile Thr Gly Cys Val Lys Asn Leu Val Leu His Ser Ala Arg Pro
 4355 4360 4365
 Gly Ala Pro Pro Pro Gln Pro Leu Asp Leu Gln His Arg Ala Gln Ala
 4370 4375 4380
 Gly Ala Asn Thr Arg Pro Cys Pro Ser
 4385 4390

<210> 367
 <211> 534
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(534)
 <223> n = g, a, c or t

<400> 367
 atatgctcat ccagatcaaa acgcaggtgg aggcctcgga ggagagcgcc ctcaaccacc 60
 tccagaaccc gggcgacgcg gccgagggcc gggcggccaa gaggtgcgag aaggccgagg 120
 agaaggccga ncggaagatt tgctgaaaac tngcatgtag atgcttggtg gagctgtgtc 180
 cggctggatt agcagtaaga gcgaagttca gtcggtgagc gcggtcgggc gggtttccag 240
 ggtccgatgg gattctcttg gccaaccttg gtggttagatg tggcttgact acccttggaa 300
 ggaaaggcct ggataagcct agaagaagcc cctttttggt tgtatctctt ctngttcttt 360
 cctgtctatt ncctatcttg ctcttcagct tttnananagt ttaacaggnt gtctgcttgg 420
 gcataattgg gctcatgatg ggtattcgat gaccctttcg aatcatggaa ngtttttcgg 480
 aattttgtta aacggtggtg tgagtagatt ttacggggga aaagggttaa ttgt 534

<210> 368
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 368
 atatgctcat ccagatcaaa acgcaggtgg aggcctcgga ggagagcgcc ctcaaccacc 60
 tccagaaccc gggcgacgcg gccgagggcc gggcggccaa gaggtgcgag aaggccgagg 120
 agaaggccaa gggagattgc gaagatggca gagatgctgg tggagctggt ccggcgata 180
 gagaagagcg agtcgtcgtg agcgcggtcg gcggtttcca gccaatggat tctggtcaac 240
 tgggtggagat tggctgacac cctggagaag ccgaaaccag agagcctttt gttttctctt 300
 ttttttctctg tctatgctct gtctcacttt aacactacgt tttctgctat gggctcctggt 360
 gagattgatg acc 373

<210> 369
 <211> 529
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(529)
 <223> n = g, a, c or t

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<400> 369
atatgctcat ccagatcaaa acgcaggtgg aggcctcgga ggagagcgcc ctcaaccacc      60
tccagaacccc gggcgacgcg gccgagggcc gggcgggccaa agaggtgcga gaaggccgag      120
gagaaggcca aggagattgc gaagatggca gagatgctgg tggagctggg ccggcggata      180
gagaagagcg agtcgctcgtg agcgcggtcg gcggtttcca gccaatggat tctggtcaac      240
tggtggagat tggctgacac cctggagaag ccgaaaacca gagagccttt gtgtttcctc      300
ttttttttcc ctgtctatgc tctgtcctca cttaaacta cgtttcctgc tatggtcatg      360
tggttgatga ccctcaatat gagtttcgaa tggtaacgtg tatagagtag tgggaagtaa      420
tttggtttga anaatgctct cacaatacag ggaattaggg acctaggatt gtaagctctt      480
gccaggcagg tcaacatttt gttcccgggg ctttgggggg taattttcta      529

```

<210> 370
 <211> 595
 <212> DNA
 <213> Homo sapiens

```

<400> 370
ccccgttgaa gtctggctct ttcttcagta gttgctgcat ggagtcgtct tccagaatta      60
atgcagctcc ttcagcacct ccagagctgg agaactccaa ctgtgagtct catgtgtcac      120
acacagaccc aaagttccag ggagctatca ggtcacacaa gaaatagcaa agcacctcaa      180
aaatttagaa ataaccacca aagccccgga acaaagtga ctgctgcaag agcttacaat      240
ctaggtccta attcctgtat gtgagagcat tttcaaacaa aattacttcc caaacaaaaa      300
cacgttaaca atcgaaactc atattgaggt catcaaccac agaccatagc agaaaacgta      360
gtgttaagtg agacagagca tagacaggaa aaaaaagaga aaacaaaagg ctctctgggt      420
tcggcttctc cagggtgtca gccaatctcc accagttgac cagaatccat tggctggaaa      480
ccgccgaccg cgctcacgac gactcgctct tctctatccg ccggaccagc tccaccagca      540
tcttctgcca tcttcgcaat ctctctggcc ttctcctcgg cttctcgcac ctctt      595

```

<210> 371
 <211> 481
 <212> DNA
 <213> Homo sapiens

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<400> 371
ccccgttgaa gtctgaccc ttcttcagta gttgctgcat ggagtcgtct tccagaatta      60
atgcagctcc ttcagcacct ccagagctgg agaactccaa ctgtgagtct catgtgtcac      120
acacagaccc aaagttccag ggagctatca ggtcacacaa gaaatagcaa agcacctcaa      180
aaatttagaa ataaccacca aagccccgga acaaagtga ctgctgcaag agcttacaat      240
ctaggcccta attcctgtat gtgagagcat tttcaaacaa aattacttcc caaacaaaaa      300
cacgttaaca atcgaaactc atattgaggt catcaaccac agaccatagc agaaaacgta      360
gtgttaagtg agacagagca tagacaggaa aaaaaagaga aaacaaaagg ctctctgggt      420
tcggcttctc cagggtgtca gccaatctcc accagttgac cagaatccat tggctggaaa      480
c

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<210> 372
 <211> 472
 <212> DNA
 <213> Homo sapiens

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<400> 372
ccccgttgaa gtctggctct ttcttcagta gttgctgcat ggagtcgtct tccagaatta      60

```

atgcagctcc	ttcagcacct	ccagagctgg	agaactccaa	ctgtgagtct	catgtgtcac	120
acacagaccc	aaagtccag	ggagctatca	ggtcacacaa	gaaatagcaa	agcacctcaa	180
aaatttagaa	ataaccacca	aagcccggga	acaaatgtga	ctgctgcaag	agcttacaat	240
ctaggcccta	attcctgtat	gtgagagcat	tttcaaacaa	aattacttcc	caaacaaaaa	300
cacgttaaca	atcgaaactc	atattgaggt	catcaaccac	agaccatagc	agaaaaacgta	360
gtgttaagt	agacagagca	tagacaggaa	aaaaaagaga	aaacaaaagg	ctctctggtt	420
tcggcttctc	cagggtgtca	gccaatctcc	accagttgac	cagaatccat	tg	472

<210> 373
 <211> 555
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(555)
 <223> n = g, a, c or t

<400> 373						
ccccgttgaa	gtctggtcct	ttcttacagt	agttgctgca	tggagtcgtc	ttccagaatt	60
aatgcagctc	cttcagcacc	tccagagctg	gagaactcca	actgtgagtc	tcatgtgtca	120
cacacagacc	caaagtcca	gggagctatc	aggtcacaca	agaaatagca	aagcacctca	180
aaaatttaga	aataaccacc	aaagcccggg	aacaaatgtg	actgctgcaa	gagcttacia	240
tctaggccct	aattcctgta	tgtgagagca	ttttcaaaca	aaattacttc	ccaaaacaaa	300
acacgttaac	aatcgaaact	catattgagg	tcatcaacca	cagaccatag	cagaaaacgt	360
agtgttaagt	gagacagagc	atagacngga	aaaaaaagag	aaaacaaaag	gctctctggt	420
ttcggcttct	ccaggggtgtc	agccaatctc	caccagttgg	ccagaatcca	ttggctggaa	480
accgccgacc	gcgctcacga	cgactcgctc	ttctctatcc	gccggaccag	ctccaccagc	540
atctctgccca	tcttc					555

<210> 374
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 374						
aatatgctca	tccagatcaa	aacgcaggtg	gaggcctcgg	aggagagcgc	cctcaaccac	60
ctccagaacc	cgggcgacgc	ggccgagggc	cgggcggcca	agaggtgcga	gaaggccgag	120
gagaaggcca	aggagattgc	gaagatggca	gagatgctgg	tggagctggg	ctggcggata	180
gagaagagcg	agtcgtcgtg	agcgcggctc	gcggtttcca	gccaatggat	tctggtcaac	240
tgggtggagat	tggctgacac	cctggagaag	ccgaaaccag	agagcctttt	gttttctctt	300
ttttttcctg	tctatgctct	gtctcactta	acactacgtt	ttctgctatg	gtctgtggtt	360
gatgacctca	atatgagttt	cgatgtgtta	acgt			394

<210> 375
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 375						
ccccgttgaa	gtctggtcct	ttcttcagta	gttgcctgcat	ggagtcgtct	ttccagaatt	60
aatgcagctc	cttcaggcac	ctccagagct	ggagaactcc	aactgtgagt	ctcatgtgtc	120
acacacagac	ccaaagtcca	aggagctat	caggtcacac	aagaaatagc	aaagcacctc	180
aaaatttag	aaataaccac	caaagcccgg	gaacaaatgt	gactgctgca	agagct	236

<210> 376
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 376

atatgctcat	ccagatcaaa	acgcagggtg	aggcctcggg	ggagagcgcc	ctcaacacct	60
ccagaacccg	ggcgacgcgg	cgaggccggg	cgggcaaaag	tgcgagaagg	ccgaggagaa	120
ggcccaggag	attgcgaaga	ttgcagagat	gctgggtggg	ctgggtccggc	ggatagagaa	180
gagcgagtcg	tcgtgagcgc	ggtcggcggt	ttccagccca	tggattctgg	tcaactgggtg	240
gagattggct	gacaccctgg	agaagccgaa	accagagagc	cttttgtttt	ctcttttttt	300
tctgtcttat	gctctgtctc	acttaacact	acgttttctg	ctatgggtctg	tggttgatga	360
cctcaatatg	agtttcgatt	gttaacgtgt	ttttgtttgg	gaagtaattt	tgtttgaaaa	420
tgctctcaca	tacaggaatt	a				441

<210> 377
 <211> 1534
 <212> DNA
 <213> Homo sapiens

<400> 377

ttgtccgtgg	cttctctgag	aagaaaagtt	gaaaaagggg	aaaagttttc	aggaatatctc	60
gggctctcta	ttgctaagca	tagcgagtgt	cggttttctc	tctccaacag	acatcgctat	120
tgcggttccg	aggcagtggg	aagagatgcg	gcccctggac	atcgctcgagc	tggcggaacc	180
ggaggaaagt	gaggtgctgg	agcccgagga	ggatttctgag	cagtttctgc	tcccgggtcat	240
caacgagatg	cgcgaggaca	tcgcgtcgct	gacgcgcgag	cacgggcggg	cgtaacctgcg	300
gaaccggagc	aagctgtggg	agatggacaa	tatgctcatc	cagatcaaaa	cgcagggtgga	360
ggcctcggag	gagagcgccc	tcaaccacct	ccagaacccg	ggcgacgcgg	ccgaggggccg	420
ggcgccaag	aggtgcgaga	aggccgagga	gaaggccaag	gagattgcga	agatggcaga	480
gatgctgggt	gagctgggtc	ggcggataga	gaagagcgag	tcgtcgtag	cgcggtcggc	540
ggtttccagc	caatggattc	tgggtcaactg	gtggagattg	gctgacaccc	tggagaagcc	600
gaaaccagag	agccttttgt	tttctctttt	ttcctgtcta	tgctctgtct	cacttaacac	660
tacgttttct	gctatgggtc	gtggttgatg	acctcaatat	gagtttctgat	tggttaacgtg	720
ttttgtttg	ggaagtaatt	ttgtttgaaa	atgctctcac	atacaggaat	tagggcctag	780
attgtaagct	cttgacgagc	tcacatttgt	tcccgggctt	tgggtgggtat	ttctaaattt	840
ttgaggtgct	ttgctatttc	ttgtgtgacc	tgatagctcc	ctggaacttt	gggtctgtgt	900
gtgacacatg	agactcacag	ttggagtctc	ccagctctgg	aggtgctgaa	ggagctgcat	960
taattctgga	agacgactcc	atgcagcaac	tactgaagaa	aggaccagac	ttcaacgggg	1020
agtgtggatg	ggccgacctg	gctgggaactc	gtgaatctgg	agaagagctg	gagaatggat	1080
agtattgtct	gtatttggag	actttaattt	ctgtgtgaga	ccaaaggagg	agagatgtgt	1140
tttgttcaaa	atttaaat	gttgtggtac	actatcttat	gtaacctgtc	tgggtgagttt	1200
gtttggacaa	cctaactcag	ctttatttga	catggaacct	aaaatagaag	ataagatctt	1260
gatattctgt	acaagttgat	gtaataccct	gatgcgtttt	agaggacttg	gcataaaatg	1320
aaagattggc	aaaggccctt	gaggggcttg	gggatgacag	tatggaaactg	tctgcattgg	1380
accctaaact	ggactagaag	aggcatcttc	aaggttcata	cgttgtccag	ctgtaagttc	1440
atttgagtag	cagacctaac	aaatatttga	ggtcagaacc	ctaccatgtt	aaaacaaaaca	1500
aaaacttacc	atgttaataa	aagtattcat	ttgc			1534

<210> 378
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 378

Met	Arg	Pro	Leu	Asp	Ile	Val	Glu	Leu	Ala	Glu	Pro	Glu	Glu	Val	Glu
1				5				10						15	
Val	Leu	Glu	Pro	Glu	Glu	Asp	Phe	Glu	Gln	Phe	Leu	Leu	Pro	Val	Ile
			20					25					30		
Asn	Glu	Met	Arg	Glu	Asp	Ile	Ala	Ser	Leu	Thr	Arg	Glu	His	Gly	Arg
		35					40				45				
Ala	Tyr	Leu	Arg	Asn	Arg	Ser	Lys	Leu	Trp	Glu	Met	Asp	Asn	Met	Leu
	50					55				60					
Ile	Gln	Ile	Lys	Thr	Gln	Val	Glu	Ala	Ser	Glu	Glu	Ser	Ala	Leu	Asn
65					70				75					80	
His	Leu	Gln	Asn	Pro	Gly	Asp	Ala	Ala	Glu	Gly	Arg	Ala	Ala	Lys	Arg
			85					90						95	

Cys Glu Lys Ala Glu Glu Lys Ala Lys Glu Ile Ala Lys Met Ala Glu
100 105 110
Met Leu Val Glu Leu Val Arg Arg Ile Glu Lys Ser Glu Ser Ser
115 120 125

<210> 379
<211> 646
<212> DNA
<213> Homo sapiens

<400> 379
cgcccccccc gttccccccg cggccatgaa cgccgctcgc accggctacc gagtcttctc 60
ggccaactcc acggccgcct gcacggagct ggccaagcgc atcacagagc gccttggtgc 120
tgaattgggg aagtctgttg tatatgaaga gaccaatgga gaaacaagag ttaaaataaa 180
agaatctgtt cgtggccaag atattttcat tatacagaca ataccagag atgtgaatac 240
agctgtgatg gagttgctca tcatggctta cgcaactgaag actgcctgtg ccaggaacat 300
tattgggggtc atccccctact tccccctacag caagcagagc aagatgagaa agagggggtc 360
cattgtgtgc aagctgctag catccatgct ggcgaaagca ggtttaactc acattatcac 420
tatggatctt catcaaaaagg aaatacaagg ctttttcagc tttcctgtgg acaaccttag 480
agcctcacct ttcctgcttc agtatatccg gaagaaattc caaattacag aaatgcagtc 540
attgtagcta gtctcctgat gctgcaaaga gggcccagtc ctatgcggag agactgcgtc 600
tgggttttgg ccgtcattca cggggaagct cagtgcacgg aactgg 646

<210> 380
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(317)
<223> n = g, a, c or t

<400> 380
ctgccccggc ccggttcccc ctgccnggcc atgaacgccg ctctgcaccg gctaccgagt 60
cttctcggcc aactccacgg ccgcctgcac ggagctggcc aagcgcacatca cagagcgcct 120
tggtgctgaa ttgggggaagt ctgttggtata tganagagac caatggagga aaccaagagt 180
tacacanagt acaaagaant ctgttcgttg gccaaaggata ttttcattat acagacaatt 240
aaccagaga tgtgaatata gctgtgatgg agttgctcat catggcttac gcaactgaaga 300
ctgcctgtgc caggaaac 317

<210> 381
<211> 186
<212> DNA
<213> Homo sapiens

<400> 381
cgcccccccc gttccccccg cggccatgaa cgccgctcgc ccgggtaccga gtcttctcgg 60
caactccacg gcgcctgacg gagctggcca agcgcataca gagcgccttg gtgctgaatt 120
ggggaagtct gttgtatatt aagagaccaa tgggaaacaa gagttaaata aaagatctgt 180
tcgtgg 186

<210> 382
<211> 712
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(712)
<223> n = g, a, c or t

```

<400> 382
cgcccccccc ngtttcccc gccggccatg aacgccgctc gcacccggta ccgagttctt      60
ctcggccaac tccacggccg cctgcacgga gccttggcca agccgcatca cagagcgctt      120
tgggtgctgaa tgggggaagt ctgtggtata tgaagagacc aatggaggaa acaagagtta      180
aaataaaaaga attctgttctg tggccaagat tatttttcat ttatacagac aattaccag      240
agatgttgaa ttacagcttg ttgattggag tttgctcatt catggcttta cgccactgaa      300
gacttgccctt gttgccagga acattttattg gggtcacccc cttacttccc ctacagcaag      360
cagagcaaaag atgagaaaaga ggggttccat tgtgtgcaag ctgcttaggc aatccatgct      420
ggccgaaaaag cnggtttaac tcacattatc actatggatc ttcatacaaaa ggaaatacaa      480
gggcttttac aagcttttctt tgtggaacaa accctttaga agccttcaac ctttttcttg      540
cttcagtata tcccaggaag gaaattccaa attaccagaa atgcaggta tttggtagct      600
aagtctccct gatgccttgc caagganggg ccagtcctat tcggagaana catgcgtctg      660
gttgggccgg aantcacacg ggaaccnca tgcacagaac tcnggacctt gg              712

```

<210> 383

<211> 701

<212> DNA

<213> Homo sapiens

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<400> 383
cgcccccccc ggttccccgc cggccatgaa cgccgctcgc accggctacc gagtcttctc      60
ggccaactcc acggccgcct gcacggagct ggccaagcgc atcacagagc gccttgggtgc      120
tgaattggggg aagtctgttg tatatgaaga gaccaatgga gaaacaagag taaaaataaa      180
agaatctgtt cgtggccaag atattttcat tatacagaca ataccagag atgtgaatac      240
agctgtgatg gagttgctca tcatggctta cgcactgaag actgcctgtg ccaggaacat      300
tattgggggtc atcccctact tcccctacag caagcagagc aagatgagaa agaggggttc      360
cattgtgtgc aagctgctag catccatgct ggcgaaagca ggtttaactc acattatcac      420
tatgatcttc atcaaaagga aatacaaggc tttttcagct ttcctgtgga caaccttaga      480
gcctcacctt tcctgcttca gtatatccgg aagaaattcc aaattacaga aatgcagtca      540
ttgtagctaa cgtctcctga tgctgcaaa agggccagc cctatgcgga gagactgcgt      600
ctggggttgg ccgtcattca cggggaagct cagtgcacgg aactggacat tggacgatgg      660
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<210> 384

<211> 1728

<212> DNA

<213> Homo sapiens

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<400> 384
ggtgcgcaag ggcacggacc tcggagctct ccccgttccc ccgccggcca tgaacgccgc      60
tcgcaccggc taccgagctt tctcgccaa ctccacggcc gcctgcacgg agctggccaa      120
gcgcatacaca gagcgcttg gtgctgaatt ggggaagtct gttgtatata aagagaccaa      180
tggagaaaca agagttgaaa taaaagaatt tgttcgtggc caagatattt tcattataca      240
gacaataccc agagatgtga atacagctgt gatggagtg ctcacatgag cttacgcact      300
gaagactgcc tgtgccagga acattattgg ggtcatcccc tacttcccct acagcaagca      360
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agcaggttta actcacatta tcaactatgga tcttcatcaa aaggaaatac aaggcttttt      480
cagctttcct gtggacaacc ttagagcctc acctttcctg cttcagtata tccaggaaga      540
aattccaaat tacagaaatg cagtcattgt agctaagtct cctgatgctg caaagagggc      600
ccagtcctat gcggagagac tgcgtctggg tttggccgtc attcacgggg aagctcagtg      660
cacggaactg gacatggacg atggctgtca ctccccgcct atgggtcaaaa atgctactgt      720
gcacccaggc ctggagttgc cattgatgat ggccaaagag aagccaccga taactgtagt      780
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ggtggtggtg acgaatactg tccctcatga ggttcagaag ctgcaatgtc ccaagataaa      1020
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ctggacctcc tgagggaaac atggaaaaaag cagtgccatg agtgatacag tgtttccttg      1200
caaggaggga ctcgaaacag cctggagtta gatattctt tttgcccgga ttgatgggga      1260
ggagggatta aaagagtcag gaagaagaca gagctaattg ataaatatca taacatggcc      1320

```



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ttacatgtct gctgtcatca gccctgttcc ttaaaagtcc tagctgcttt cttaaaaata 1380
atctgaaaat cttattgata ctaaagagga gttaaaggca cataaagtct taactctata 1440
atgttcattt agttgtttca gctccaggga aatggaggta ttgatgttga acctgggttag 1500
ggaagctgag cgcctgtggc cctattacta tccagttggc ctctcccaaa tcaacttcaa 1560
gtcttttata gagaatcgta tttttctttc agaaattgct atgcctacag ccattgaaaa 1620
atgaagcatt catgttgta catcttccaa ggatgtcaga ttagaaaata gcaccccacc 1680
tctgggtatc tgagtggctc tgaagttgca aataaaataa tttgttgt 1728

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<210> 385
 <211> 356
 <212> PRT
 <213> Homo sapiens

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<400> 385
Met Asn Ala Ala Arg Thr Gly Tyr Arg Val Phe Leu Ala Asn Ser Thr
 1          5          10          15
Ala Ala Cys Thr Glu Leu Ala Lys Arg Ile Thr Glu Arg Leu Gly Ala
 20          25          30
Glu Leu Gly Lys Ser Val Val Tyr Gln Glu Thr Asn Gly Glu Thr Arg
 35          40          45
Val Glu Ile Lys Glu Phe Val Arg Gly Gln Asp Ile Phe Ile Ile Gln
 50          55          60
Thr Ile Pro Arg Asp Val Asn Thr Ala Val Met Glu Leu Leu Ile Met
 65          70          75          80
Ala Tyr Ala Leu Lys Thr Ala Cys Ala Arg Asn Ile Ile Gly Val Ile
 85          90          95
Pro Tyr Phe Pro Tyr Ser Lys Gln Ser Lys Met Arg Lys Arg Gly Ser
100          105          110
Ile Val Cys Lys Leu Leu Ala Ser Met Leu Ala Lys Ala Gly Leu Thr
115          120          125
His Ile Ile Thr Met Asp Leu His Gln Lys Glu Ile Gln Gly Phe Phe
130          135          140
Ser Phe Pro Val Asp Asn Leu Arg Ala Ser Pro Phe Leu Leu Gln Tyr
145          150          155          160
Ile Gln Glu Glu Ile Pro Asn Tyr Arg Asn Ala Val Ile Val Ala Lys
165          170          175
Ser Pro Asp Ala Ala Lys Arg Ala Gln Ser Tyr Ala Glu Arg Leu Arg
180          185          190
Leu Gly Leu Ala Val Ile His Gly Glu Ala Gln Cys Thr Glu Leu Asp
195          200          205
Met Asp Asp Gly Arg His Ser Pro Pro Met Val Lys Asn Ala Thr Val
210          215          220
His Pro Gly Leu Glu Leu Pro Leu Met Met Ala Lys Glu Lys Pro Pro
225          230          235          240
Ile Thr Val Val Gly Asp Val Gly Gly Arg Ile Ala Ile Ile Val Asp
245          250          255
Asp Ile Ile Asp Asp Val Glu Ser Phe Val Ala Ala Ala Glu Ile Leu
260          265          270
Lys Glu Arg Gly Ala Tyr Lys Ile Tyr Val Met Ala Thr His Gly Ile
275          280          285
Leu Ser Ala Glu Ala Pro Arg Leu Ile Glu Glu Ser Ser Val Asp Glu
290          295          300
Val Val Val Thr Asn Thr Val Pro His Glu Val Gln Lys Leu Gln Cys
305          310          315          320
Pro Lys Ile Lys Thr Val Asp Ile Ser Leu Ile Leu Ser Glu Ala Ile
325          330          335
Arg Arg Ile His Asn Gly Glu Ser Met Ala Tyr Leu Phe Arg Asn Ile
340          345          350
Thr Val Asp Asp
355

```

<210> 386
 <211> 413
 <212> DNA
 <213> Homo sapiens

<400> 386
 gtgctgacca tgcagaatac cagcgacctg gacacagccc gctgcaccac cagcatcctg 60
 cacaacctct cccaccaccg ggaggggctg ctcgccatct tcaagtcggg tggcatccct 120
 tctctgggtc gcatgctcag ctcccccttt gagtcgggtc tgttctatgc catcaccacg 180
 ctgcacaacc tgctcctgta ccaggagggc gccaaagtgg cgtgcgccct ggccgacggg 240
 ctgcaaaaga tgggtgcccct gctcaacaag aacaacccca agttcctggc catcaccacc 300
 gactgcctgc agtcctggc ctacggcaac caggagagca agctgatcat cctggccaat 360
 ggtgggcccc agggccctcg gtgcacgatt atgcgttact tcgtttttaa agc 413

<210> 387
 <211> 428
 <212> DNA
 <213> Homo sapiens

<400> 387
 ccagtgtgtg cgtgctgtac catgcagaat accagcgacc tggacacagc ccgctgcacc 60
 accagatcc tgcacaacct ctcccaccac cgggaggggc tgctcgccat cttcaagtcg 120
 ggtggcatcc ctgctctggt ccgcatgctc agctcccctt ttgagtcggg cctgtttcta 180
 tgccatcacc acgctgcaca acctgctcct gtaccaggag ggcgccaaga tggcctgctg 240
 cctggccgac gggctgcaaa agatggtgcc cctgctcaac aagaacaacc ccagttcctg 300
 gccatcacca ccgactgcct gcagctcctg gcctacggca accaggagag caagctgatc 360
 atcctggcca atggtgggccc ccaggccctc gtgcagatca tgcgtaacta cgttattaaa 420
 agtgctc 428

<210> 388
 <211> 609
 <212> DNA
 <213> Homo sapiens

<400> 388
 tccagtgtgtg tcgtgcgtac catgcagaat accagcgacc tggacacagc ccgctgcacc 60
 accagatcc tgcacaacct ctcccaccac cgggaggggc tgctcgccat cttcaagtcg 120
 ggtggcatcc ctgctctggt ccgcatgctc agctcccctt gtggagtctg tctgtttcta 180
 tgccatcacc acgctgcaca acctgctcct gtaccaggag ggcgccaaga tggcctgctg 240
 cctggccgac gggctgcaaa agatggtgcc cctgctcaac aagaacaacc ccaagttcct 300
 ggccatcacc accgactgcc tgcagctcct ggccctacggc aaccaggaga gcaagctgat 360
 catcctggcc aatggtggggc ccaggccctc cgtgcagatc atgcgtaact acgttatgaa 420
 aagctgtctt ggaccaccag tcgtgtgctc aaggtgctat ccgtgtgtcc cagcaataag 480
 cctgccattg tggaggctgg tgggatgcag gccctgggca agcacctgac cagcaacagc 540
 cccgcctgg tgcagaactg cctgtggacc ctgcgcaacc tctcagattt ggccaccagg 600
 caggagggc 609

<210> 389
 <211> 587
 <212> DNA
 <213> Homo sapiens

<400> 389
 ccagtgtgtg cgtgcgtacc atgcagaata ccagcgacct ggacacagcc cgtgcacca 60
 ccagcatcct gcacaacctc tcccaccacc gggaggggct gctcgccatc ttcaagtcgg 120
 gtggcatccc tgctctggtc cgcattgctc gctcccctgt gggagtcggg cctgtttctat 180
 gccatcacca cgctgcacaa cctgctcctg taccaggagg gcgccaagat ggccgtgcgc 240
 ctggccgacg ggctgcaaaa gatggtgccc ctgctcaaca agaacaacc caagttcctg 300
 gccatcacca ccgactgcct gcagctcctg gcctacggca accaggagag caagctgatc 360
 atcctggcca atggtgggccc ccaggccctc gtgcagatca tgcgtaacta cagttatgaa 420
 aagctgtctt ggaccaccag tcgtgtgctc aaggtgctat ccgtgtgtcc cagcaataag 480

cctgccattg	tggaggctgg	tgggatgcag	gccctgggca	agcacctgac	cagcaacagc	540
ccccgcctgg	tgcagaactg	cctgtggacc	ctgcgcaacc	tctcaga		587

<210> 390
 <211> 631
 <212> DNA
 <213> Homo sapiens

<400> 390						
tgctgtcgtg	cgtaccatgc	agaataccag	cgacctggac	acagcccgt	gcaccaccag	60
catcctgcac	aacctctccc	accaccggga	ggggctgctc	gccatcttca	agtcgggtgg	120
catccctgct	ctggtcgca	tgtcagctc	cccttggagt	cggctcctgtt	ctatgccatc	180
accacgtgc	acaacctgct	cctgtaccag	gagggcgcca	agatggcgt	gcgcctggcc	240
gacgggctgc	aaaagatggg	gcccctgctc	aacaagaaca	accccaagtt	cctggccatc	300
accaccgact	gcctgcagct	cctggcctac	ggcaaccagg	agagcaagct	gatcatcctg	360
gccaatggtg	ggccccaggc	cctcgtgcag	atcatgcgta	actacagtta	tgaaaagctg	420
ctctggacca	ccagtcgtgt	gctcaagggtg	ctatccgtgt	gtcccagcaa	taagcctgcc	480
attgtggagg	ctggtgggat	gcaggccctg	ggcaagcacc	taccagcaac	agcccccgcc	540
tggtgcagaa	ctgcctgtgg	accctgcgca	acctctcaga	tttggccacc	aggcaggagg	600
gcctggagag	tgtgctgaaa	gattctggtg	a			631

<210> 391
 <211> 475
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(475)
 <223> n = g, a, c or t

<400> 391						
agcttttttat	aactgtagtt	acgcatgata	tgcacgaggg	cctggggccc	accattggcc	60
aggatgatca	gcttgctctc	ctggttgccg	tagccagagc	tgcagcagtc	gtgtatgccca	120
gaacttgggg	ttgttcttgt	tgagcagggg	caccatcttt	tgcagcccgt	cgccaggcgc	180
acggccatct	tggcgccctc	ctggtacagg	agcaggttgt	gcagcgtggt	gatgcataga	240
acaggaccga	ctccacangg	gagctgagca	tgcggaccag	agcaggatgc	caccacttg	300
aaatgcagca	gccccctccc	gtgtggagag	gttgtgcagg	atgctgtggt	gcagcgggct	360
gtgtccagtc	gctgtattct	gcatggtacg	cacgacgcgc	caccactggg	cgagcccac	420
agggcccgc	gcgaccctcc	ttttcgacgc	tgttcacaat	catgcccctt	gtcac	475

<210> 392
 <211> 648
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(648)
 <223> n = g, a, c or t

<400> 392						
gagaggcgcc	atngncgggtg	gcagcgggtg	ctccagtgtc	gtcgtgcgta	ccatgcagaa	60
taccagcgac	ctggacacag	cccgtgcac	caccagcatc	ctgcacaacc	tctcccacca	120
ccgggagggg	ctgctcgcca	tcttcaagtc	gggtggcatc	cctgnctctg	gtccgcagtc	180
tcagctcccc	tgntggagtc	ggtcctgttc	tatgccatca	ccacgtgca	caacctgctc	240
ctgtaccagg	agggcgccaa	gatggccgtg	cgctggccg	acgggctgca	aaagatgggtg	300
ccctgctca	acaagaacaa	ccccaagttc	ctggccatca	ccaccgactg	cctgcagctc	360
ctggcctacg	gcaaccaggga	gagcaagctg	atcatcctgg	ccaatgggtg	gccccaggcc	420
ctcgtgcaga	tcatgcgtaa	ctacagttat	gaaaagctgc	tctggaccac	cagtcgtgtg	480
ctcaagggtgc	tatccgtgtg	tcccagcaat	aagcctgcc	ttgtggaggc	tggtgggatg	540

caggccctgg	gcaagcacct	gaccagcaac	agcccccgcc	tggtgcagaa	ctgcctgtgg	600
accctgcgca	acctctcaga	tgtggccacc	aggcaggagg	gcctggag		648

<210> 393
 <211> 954
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(954)
 <223> n = g, a, c or t

<400> 393						
gncggtggca	gcggtggctc	cagtgtgtgc	gtgcgtacca	tgcagaatac	cagcgacctg	60
gacacagccc	gctgcaccac	cagcatcctg	cacaacctcc	cccaccaccg	ggagggggctg	120
ctcgccatct	tcaagtctgg	tggcatccct	gctctgggtcc	gcattgctcag	ctccccctgnt	180
ggagtctgtc	ctgtttctatg	ccatcaccac	gctgcacaaac	ctgtctctgt	accaggagggg	240
cgccaagatg	gccgtgcgcc	tggccgacgg	gctgcaaaaag	atgggtgcccc	tgtctcaacaa	300
gaacaacccc	aagtctcttg	ccatcaccac	cgactgcctg	cagctccttg	cctacgggcaa	360
ccaggagagc	aagtctgatca	tcttggccaa	tggtggggccc	caggccctcg	tgcagatcat	420
gcgttaactac	agttatgaaa	agctgtctctg	gaccaccagt	cgtgtgtctca	aggtgtctatc	480
cgtgtgtccc	agcaataagc	ctgccattgt	ggaggctggg	gggatgcagg	ccctggggcaa	540
gcacctgacc	agcaacagcc	ccgcctggg	gcagaactgc	ctgtggaccc	tgcgcaacct	600
ctcagatgtg	gccaccaagc	aggagggcct	ggagagtgtg	ctgaagattc	tggtgaatca	660
gctgagtgtg	gatgacgtca	acgtctctac	ctgtgccacg	ggcacactct	ccaacctgac	720
atgcaacaac	agcaagaaca	agacgtggg	gacacagaac	agcgggtgtg	aggctctcat	780
ccatgccatc	ctgcgtgctg	gtgacaagga	cgacatcacg	gagcctgccg	tctgcgctct	840
gcgccacctc	actagccgnc	accctgagg	cgagaacggc	ctggccccag	taacggggccc	900
ctctntgcag	gctttcctcc	tctctagaan	ctccttctgt	tggaaggccc	tccg	954

<210> 394
 <211> 926
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(926)
 <223> n = g, a, c or t

<400> 394						
gagaggcgcc	atngncggtg	gcagcgggtg	ctccagtgtc	gtcgtgcgta	ccatgcagaa	60
taccagcgac	ctggacacag	cccgtgtcac	caccagcatc	ctgcacaacc	tctcccacca	120
ccgggagggg	ctgctcgcca	tcttcaagtc	gggtggcatc	cctgtctctg	tccgcatgct	180
cagctcccc	gatggagtcg	gtcctgttct	atgccatcac	cacgctgcac	aacctgtctc	240
tgtaccagga	gggcgccaag	atggccgtgc	gcctggccga	cgggctgcaa	aagatgggtgc	300
ccctgtctca	caagaacaac	cccaagttcc	tggtccatcac	caccgactgc	ctgcagctcc	360
tggtctacgg	caaccaggag	agcaagctga	tcatcctggc	caatgggtggg	ccccaggccc	420
tcgtgcagat	catgcgtaac	tacagttatg	aaaagctgct	ctggaccacc	agtcgtgtgc	480
tcaagggtgct	atccgtgtgt	cccagcaata	agcctgccat	tgtggaggct	ggtgggatgc	540
aggccctggg	caagcacctg	accagcaaca	gccccgcct	ggtgcagaa	tgctgtgga	600
ccctgcgcaa	cctctcagat	gtggccacca	agcaggaggg	cctggagagt	gtgctgaaga	660
ttctgggtgaa	tcagctgagt	gtggatgacg	tcaacgtcct	cacctgtgcc	acgggcacac	720
tctccaacct	gacatgcaac	aacagcaaga	acaagacgct	ggtgacacag	aacagcgggtg	780
tgagggtctc	catccatgcc	atcctgcgtg	ctggtgacaa	ggacgacatc	acggagcctg	840
ccgtctgcgc	tctgngccan	ctcattagcc	gccaccctga	gggagagatg	gnccagaact	900
ctgtgcgtcn	caactatggc	atccca				926

<210> 395
 <211> 536
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(536)
 <223> n = g, a, c or t

```

<400> 395
tgggtggtcca gagcagcttt ttataactgt agttacgcat gatctgcacg agggcctggg      60
gcccaccatt ggccaggatg atcagcttgc tctcctgggt gccgtaggcc aggagctgna      120
ggcagtcggt ggtgatggcc angaacttgg gggtgtnttt gttgagcagg ggcaccatct      180
tttgacagccc gtcgggccagg cgacaggcca tcttggcgcc ctcttggtac aggagcaggt      240
tgtgcagcgt ggtgatggca tagaacagga ccgactccac aggggagctg atcatgaggga      300
ccagagcagg gatgccaccc gacttgaaga tggcgagcag cccctcccgg tgggtgggaga      360
gggtgtgcag gatgctggtg gtgcagcggg ctgtgtccag gtcgctggta ttctgcatgg      420
tacgcacgac agcggccacc agctggggcg agcccatcan gggccgncgc gacgcctcct      480
tggtcgacag ctggtccaca atcatggccg ncttggtcac caccaccggg tcctcg      536
  
```

<210> 396
 <211> 910
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(910)
 <223> n = g, a, c or t

```

<400> 396
cggnccgacc ccgacccggc ccggtcaggc cccataactca gtagccacga tggaggtgat      60
gaacctgatg gagcagccta tcaaggtagc tgantggcag cagacataca cctacgactc      120
gggtatccac tcgggcgcca acacctgctg gccctccgnc agcagcaagg gcatcatgga      180
ggaggatgag gcctgcgggc gccagtacac gctcaagaaa accaccactt acaccaggga      240
ggtgcccccc agccaagggtg acctggagta ccagatgtcc acaacagcca gggccaaacg      300
ggtgcggggag gccatgtgcc ctggtgtgtc aggcgaggac agctcgcttc tgctggccac      360
ccagggtggag gggcaggcca ccaacctgca gcgactggcc gagccgtccc agctgctcaa      420
gtcggccatt gtgcatctca tcaactacca ggacgatgcc gagctggcca ctgcgcacct      480
gcccagagtc accaaactgc tcaacgacga ggaccgggtg gtggtgacca aggcggncat      540
gattgtgaac cagctgtcga acaaggaggc gtcgcggcgg gccctgatgg gctcgcccca      600
gctggtggcc gctgtcgtgc gtaccatgca gaataccagc gacctggaca cagcccgtg      660
caccaccagc atcctgcaca acctctccca ccaccgggag gggctgctcg ccatcttcaa      720
gtcgggtggn atccctgctc tggtecgcat gctcagctcc ctgtggagtc ggtcctgttc      780
tatgccatca ccacctgnac aacctgctcc tgtaccagga ggggcgccaa natggccgtg      840
cgcttgggcg acggnatggaa aanatgtgcc ctgctcaaca gaacaccca agttctggca      900
tcacacgaat                                     910
  
```

<210> 397
 <211> 533
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(533)
 <223> n = g, a, c or t

```

<400> 397
nggtggtcca gancagcttt ttataactgt agttacgcat gatctgcacn agggcctggg      60
  
```

gcccaccata	tggccaggat	gatcagcttg	ctctcctggt	tgccgtaggc	caggagctgc	120
aggcagtcgg	tggatgatggc	caggaacttg	gggttggtct	tgttgagcag	gggcaccatc	180
ttttgcagcc	cgtcggccag	cgccacggcc	atcttgccgc	cctcctggta	caggagcagg	240
ttgtgcagcg	tggatgatggc	atagaacagg	accgactcca	caggggagct	gagcatgcgg	300
accagagcag	ggatgccacc	cgacttgaan	atggcgagca	gccccctccg	gtgggtgggag	360
aggttggtgca	ggatgctggt	ggtgcagcgg	gctgtgtcca	ggtcgctggt	attctgcatg	420
gtacgcacga	cagcggccac	cagctggggc	gagcccatca	gggncccgc	gcgacgcctc	480
cttgttcgac	agctggttca	caatcatggc	cgccttggtc	accaccaccg	ggt	533

<210> 398

<211> 883

<212> DNA

<213> Homo sapiens

<400> 398

tggatggtcca	gagcagcttt	ttataactgt	agttacgcat	gatctgcacg	agggcctggg	60
gcccaccatt	ggccaggatg	atcagcttgc	tctcctgggt	gccgtaggcc	aggagctgca	120
ggcagtcggt	ggtgatggcc	aggaacttgg	ggttgttctt	gttgagcagg	ggcaccatct	180
tttgacagccc	gtcggccagg	cgccacggcca	tcttgccgc	ctcctggtac	aggagcaggt	240
tgtgcagcgt	ggtgatggca	tagaacagga	ccgactccac	aggggagctg	agcatgcgga	300
ccagagcagg	gatgccaccc	gacttgaaga	tggcgagcag	ccccctcccg	tgggtgggaga	360
ggttggtgcag	gatgctggtg	gtgcagcggg	ctgtgtccag	gtcgctggta	ttctgcatgg	420
tacgcacgac	agcggccacc	agctggggcg	agcccatcag	ggcccgcgc	gacgcctcct	480
tgttcgacag	ctgggttcaca	atcatggccg	ccttggtcac	caccaccggg	tcctcgctcgt	540
tgagcagttt	ggtgagctcg	ggcagggcgc	gagtggccag	ctcgccatcg	tcctggtagt	600
tgatgagatg	cacaatggcc	gacttgagca	gctgggacgg	ctcgccaggt	cgctgcaggt	660
tggatggcctg	ccccctccacc	tgggtggcca	gcagaagcga	gctgtcctcg	cctgacacac	720
cagggcacat	ggcctcccg	acccgttttg	ccctggctgt	tgtggacatc	tggtactcca	780
ggtcaccttg	gcttgggggg	caccccttgg	gtgtaagtgg	tggttttctt	gagcgtgtac	840
tggcgcccg	aggcctcatc	ctcctccatg	atgcccttgc	tgc		883

<210> 399

<211> 773

<212> DNA

<213> Homo sapiens

<400> 399

tggatggtcca	gagcagcttt	ttataactgt	agttacgcat	gatctgcacg	agggcctggg	60
gcccaccatt	ggccaggatg	atcagcttgc	tctcctgggt	gccgtaggcc	aggagctgca	120
ggcagtcggt	ggtgatggcc	aggaacttgg	ggttgttctt	gttgagcagg	ggcaccatct	180
tttgacagccc	gtcggccagg	cgccacggcca	tcttgccgc	ctcctggtac	aggagcaggt	240
tgtgcagcgt	ggtgatggca	tagaacagga	ccgactccac	aggggagctg	agcatgcgga	300
ccagagcagg	gatgccaccc	gacttgaaga	tggcgagcag	ccccctcccg	tgggtgggaga	360
ggttggtgcag	gatgctggtg	gtgcagcggg	ctgtgtccag	gtcgctggta	ttctgcatgg	420
tacgcacgac	agcggccacc	agctggggcg	agcccatcag	ggcccgcgc	gacgcctcct	480
tgttcgacag	ctgggttcaca	atcatggccg	ccttggtcac	caccaccggg	tcctcgctcgt	540
tgagcagttt	ggtgagctcg	ggcagggcgc	gagtggccag	ctcgccatcg	tcctggtagt	600
tgatgagatg	cacaatggcc	gacttgagca	gctgggacgg	ctcgccaggt	cgctgcaggt	660
tggatggcctg	ccccctccacc	tgggtggcca	gcagaagcga	gctgtcctcg	cctgacacac	720
cagggcacat	ggcctcccg	acccgttttg	ccctggctgt	tgtggacatc	tgg	773

<210> 400

<211> 618

<212> DNA

<213> Homo sapiens

<400> 400

tggatggtcca	gagcagcttt	ttataactgt	agttacgcat	gatctgcacg	agggcctggg	60
gcccaccatt	ggccaggatg	atcagcttgc	tctcctgggt	gccgtaggcc	aggagctgca	120
ggcagtcggt	ggtgatggcc	aggaacttgg	ggttgttctt	gttgagcagg	ggcaccatct	180
tttgacagccc	gtcggccagg	cgccacggcca	tcttgccgc	ctcctggtac	aggagcaggt	240

tgtgcagcgt	ggtgatggca	tagaacagga	ccgactccac	aggggagctg	agcatgcgga	300
ccagagcagg	gatgccaccc	gacttgaaga	tggcgagcag	ccccccccg	tggtgggaga	360
ggttgtgcag	gatgctgggt	gtgcagcggg	ctgtgtccag	gtcgttggt	ttctgcatgg	420
tacgcacgac	agcggccacc	agctggggcg	agcccatcag	ggcccgcgc	gacgccctcc	480
ttgttcgaca	gctgggttcac	aatcatggcc	gcctttggtc	accaccaccg	ggtcctcgtc	540
gttgagcagt	ttggttaagc	tcgggcaggg	cgcgagtggc	cagctcggca	tcgtcctggt	600
agttgatgag	atgcacaa					618

<210> 401

<211> 750

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(750)

<223> n = g, a, c or t

<400> 401

cangagagca	agctgatcat	cctggccaat	ggtgggcccc	aggccctcgt	gcagatcatg	60
cgtaactaca	gttatgaaaa	gctgctctgg	accaccagtc	gtgtgctcaa	ggtgctatcc	120
gtgtgtccca	gcaataagcc	tgccattgtg	gaggctgggt	ggatgcaggc	cctgggcaag	180
cacctgacca	gcaacagccc	ccgacctggg	gcagaactgc	ctgtggaccc	tgcgcaacct	240
ctcagatgtg	gccaccaggc	aggagggcct	ggagagtgtg	ctgaagattc	tggtgaatca	300
gctgagtgtg	gatgacgtca	acgtcctcac	ctgtgccacg	ggcacactct	ccaacctgac	360
atgcaacaac	agcaagaaca	agacgttggt	gacacagaac	agcgggtgtg	aggctctcat	420
ccatgccatc	ctgctgtgct	gtgacaagga	cgacatcacg	gagcctgccg	tctgcgtctt	480
gcgccacctc	actagccgcc	accctgaggc	cgagatggcc	cagaactctg	tgctgtctcaa	540
ctatggcatc	ccagccatcg	tgaagctgct	caaccagccc	aaccagtggc	cactgggtcaa	600
ggcaaccatc	ggcttgatca	ggaatctggc	cctgtgcccc	agcccaacca	tgccccgctg	660
caggaggcag	nggtcatccc	cgctcgtcc	aactgctggt	gaangcccac	caggatgccc	720
agngccacgt	anctgcaggc	ncaccgcagc				750

<210> 402

<211> 858

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(858)

<223> n = g, a, c or t

<400> 402

ccctgnataa	tacnttagtg	tggatgacgt	caangtcctc	nnetgctgcc	acggggacac	60
tctccaacct	gacatgcaac	aacagcaaga	acaagacgct	ggtgacacag	aacagcgggtg	120
tggaggctct	catccatgcc	atcctgcgat	gctggtgaca	aggacgacat	cacggagcct	180
gcggtctgcg	ctctgcgcc	cctcactagc	cgccaccctg	aggccgagat	ggcccagaac	240
tctgtgcgtc	tcaactatgg	catcccagcc	atcgtgaagc	tgctcaacca	gcccaccag	300
tggccactgg	tcaaggcaac	catcggcttg	atcaggaatc	tggccctgtg	cccagccaac	360
catgccccgc	tgcaggaggc	agcggtcatc	ccccgcctcg	tccaactgct	ggtgaaggcc	420
caccaggatg	cccagcgcca	cgtagctgca	ggcacacagc	agccctacac	ggatgggtgtg	480
aggatggagg	agattgtgga	gggctgcacc	ggagcactgc	acatcctcgc	ccgggacccc	540
atgaaccgca	tggagatctt	ccggtcaac	accattcccc	tgtttgtgca	gctcctgtac	600
tcgtcgggtg	agaacatcca	gcgcgtggct	gccgggggtg	tgtgtgagct	ggcccaggac	660
aaggaggcgg	tcgacgccat	tgatgcagan	ggggcctcgg	ccccactcat	ggagttgctg	720
cactccccga	acgagggcac	tgccacctac	gctgctgccc	gtcctgttcc	gcattctccga	780
ngacaanaac	ccagactacc	ggaancgcgt	gtccgtggag	ctcaccaact	cccttcttca	840
ngcatgaacc	cggctgcc					858

<210> 403
 <211> 935
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(935)
 <223> n = g, a, c or t

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<400> 403
gcacactgna ctgactcnggt atctggcccn ntgcccagcc aaccatgccc cgctgcagga      60
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cgccacgcta gctgcaggca cacagcagcc ctacacggat ggtgtgagga tggaggagat      180
tgtggagggc tgcaccggag cactgcacat cctcgcccgg gaccccatga accgcatgga      240
gatcttccgg ctcaacacca ttccctgnt ttgtgcagct cctgtactcg tcggtggaga      300
acatccagcg cgtggctgcc ggggtgctgt gtgagctggc ccaggacaag gaggcggccg      360
acgccattga tgcagagggg gcctcggccc cactcatgga gttgctgcac tcccgcaacg      420
agggcactgc cacctacgct gctgccgtcc tgttcgcgat ctccgaggac aagaacccag      480
actaccggaa gcgcgtgtcc gtggagctca ccaactccct cttaagcat gaccgggctg      540
cctgggaggc tgcccagagc atgattccca tcaatgagcc ctatggagat gactnggatg      600
ccacctaccg ccccatgtac tccagcgatg tgccccttga acccgctgga gatgcacatg      660
gacatggatg gagactaccc catcgacacc tacagngang gccctaggcc ccggtacccc      720
actgnagacc acatgctgtn ctacgcggcc tggccccagt acggnccccct ctttgcaggc      780
ttttcctcct ctctagaaac ctcttctgt tggaggccct cncaaaaacc ancagnacaa      840
cccaccacag nggttacata gataaagcgn ccgntcgact antctgaggt ctgataactca      900
ctgactgtcn tacacagtga acctataaan taaaa                                     935

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<210> 404
 <211> 514
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(514)
 <223> n = g, a, c or t

```

<400> 404
aacctntga atgncgacct tttgtgtgag ctggcccagg acaaggcagg cggccgacgc      60
cattgatgca nagggggcct cggccccact catggagttg ctgcactccc gcaacgaggg      120
cactgccacc tacgctgctg ccgtcctgtt ccgcattctc gaggacaaga acccagacta      180
ccggaagcgc gtgtccgtgg agctcaccaa ctccctcttc aagcatgacc cggctgcctg      240
ggaggctgcc cagagcatga ttcccatcaa tgagccctat ggagatgact tggatgccac      300
ctaccgcccc atgtactcca gcgatgtgcc ccttgaccgc ctggagatgc acatggacat      360
ggatggagac taccctatcg acacctacag cgacggcctc agggccccgt accccactgc      420
agaccacatg ctggcctagg cggcctggcc ccagtaaggc cccctctttg caggcttttc      480
ctcctctcta gaacctcctt ctgttgaggg ccct                                     514

```

<210> 405
 <211> 256
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(256)
 <223> n = g, a, c or t

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<400> 405
agggcctcca acagaaggag gttctagaga ggaggaaaag cctgcaaaga gggggccgta      60

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ctggggccag	gccgcctagg	ccancatgtg	gtctgcagtg	gggtacgggg	gcctgaggcc	120
gtcgctgtag	gtgtcgatgg	ggtagtctcc	atccatgtcc	atgtgcatct	ccagnnggtc	180
aaggggcaca	tcgctggagt	acatggggcg	gtaggtggca	tccaagtcac	ctccataggg	240
ctcattgatg	ggaatc					256

<210> 406
 <211> 3490
 <212> DNA
 <213> Homo sapiens

<400> 406						
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gctcccaccc	cggcccagcc	ccgacccggc	ccggtcaggc	cccatactca	gtagccacga	120
tggagggtgat	gaacctgatg	gagcagccta	tcaagggtgac	tgagtggcag	cagacatata	180
cctacgactc	gggtatccac	tcgggcgcca	acacctgcgt	gccctccgtc	agcagcaagg	240
gcatcatgga	ggaggatgag	gcctgcgggc	gccagtacac	gctcaagaaa	accaccactt	300
acaccaggg	ggtgcccccc	agccaagggtg	acctggagta	ccagatgtcc	acaacagcca	360
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<210> 407
<211> 745
<212> PRT
<213> Homo sapiens

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<400> 407
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Gln Gln Thr Tyr Thr Tyr Asp Ser Gly Ile His Ser Gly Ala Asn Thr
20 25 30
Cys Val Pro Ser Val Ser Ser Lys Gly Ile Met Glu Glu Asp Glu Ala
35 40 45
Cys Gly Arg Gln Tyr Thr Leu Lys Lys Thr Thr Thr Tyr Thr Gln Gly
50 55 60
Val Pro Pro Ser Gln Gly Asp Leu Glu Tyr Gln Met Ser Thr Thr Ala
65 70 75 80
Arg Ala Lys Arg Val Arg Glu Ala Met Cys Pro Gly Val Ser Gly Glu
85 90 95
Asp Ser Ser Leu Leu Leu Ala Thr Gln Val Glu Gly Gln Ala Thr Asn
100 105 110
Leu Gln Arg Leu Ala Glu Pro Ser Gln Leu Leu Lys Ser Ala Ile Val
115 120 125
His Leu Ile Asn Tyr Gln Asp Asp Ala Glu Leu Ala Thr Arg Ala Leu
130 135 140
Pro Glu Leu Thr Lys Leu Leu Asn Asp Glu Asp Pro Val Val Val Thr
145 150 155 160
Lys Ala Ala Met Ile Val Asn Gln Leu Ser Lys Lys Glu Ala Ser Arg
165 170 175
Arg Ala Leu Met Gly Ser Pro Gln Leu Val Ala Ala Val Val Arg Thr
180 185 190
Met Gln Asn Thr Ser Asp Leu Asp Thr Ala Arg Cys Thr Thr Ser Ile
195 200 205
Leu His Asn Leu Ser His His Arg Glu Gly Leu Leu Ala Ile Phe Lys
210 215 220
Ser Gly Gly Ile Pro Ala Leu Val Arg Met Leu Ser Ser Pro Val Glu
225 230 235 240
Ser Val Leu Phe Tyr Ala Ile Thr Thr Leu His Asn Leu Leu Leu Tyr
245 250 255
Gln Glu Gly Ala Lys Met Ala Val Arg Leu Ala Asp Gly Leu Gln Lys
260 265 270
Met Val Pro Leu Leu Asn Lys Asn Asn Pro Lys Phe Leu Ala Ile Thr
275 280 285
Thr Asp Cys Leu Gln Leu Leu Ala Tyr Gly Asn Gln Glu Ser Lys Leu
290 295 300
Ile Ile Leu Ala Asn Gly Gly Pro Gln Ala Leu Val Gln Ile Met Arg
305 310 315 320
Asn Tyr Ser Tyr Glu Lys Leu Leu Trp Thr Thr Ser Arg Val Leu Lys
325 330 335
Val Leu Ser Val Cys Pro Ser Asn Lys Pro Ala Ile Val Glu Ala Gly
340 345 350

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Gly	Met	Gln	Ala	Leu	Gly	Lys	His	Leu	Thr	Ser	Asn	Ser	Pro	Arg	Leu
		355					360					365			
Val	Gln	Asn	Cys	Leu	Trp	Thr	Leu	Arg	Asn	Leu	Ser	Asp	Val	Ala	Thr
	370					375					380				
Lys	Gln	Glu	Gly	Leu	Glu	Ser	Val	Leu	Lys	Ile	Leu	Val	Asn	Gln	Leu
385					390					395					400
Ser	Val	Asp	Asp	Val	Asn	Val	Leu	Thr	Cys	Ala	Thr	Gly	Thr	Leu	Ser
			405						410					415	
Asn	Leu	Thr	Cys	Asn	Asn	Ser	Lys	Asn	Lys	Thr	Leu	Val	Thr	Gln	Asn
			420					425					430		
Ser	Gly	Val	Glu	Ala	Leu	Ile	His	Ala	Ile	Leu	Arg	Ala	Gly	Asp	Lys
		435					440					445			
Asp	Asp	Ile	Thr	Glu	Pro	Ala	Val	Cys	Ala	Leu	Arg	His	Leu	Thr	Ser
	450					455					460				
Arg	His	Pro	Glu	Ala	Glu	Met	Ala	Gln	Asn	Ser	Val	Arg	Leu	Asn	Tyr
465					470					475					480
Gly	Ile	Pro	Ala	Ile	Val	Lys	Leu	Leu	Asn	Gln	Pro	Asn	Gln	Trp	Pro
			485						490					495	
Leu	Val	Lys	Ala	Thr	Ile	Gly	Leu	Ile	Arg	Asn	Leu	Ala	Leu	Cys	Pro
			500					505					510		
Ala	Asn	His	Ala	Pro	Leu	Gln	Glu	Ala	Ala	Val	Ile	Pro	Arg	Leu	Val
		515					520					525			
Gln	Leu	Val	Lys	Ala	His	Gln	Asp	Ala	Gln	Arg	His	Val	Ala	Ala	
530					535					540					
Gly	Thr	Gln	Gln	Pro	Tyr	Thr	Asp	Gly	Val	Arg	Met	Glu	Glu	Ile	Val
545					550					555					560
Glu	Gly	Cys	Thr	Gly	Ala	Leu	His	Ile	Leu	Ala	Arg	Asp	Pro	Met	Asn
			565						570					575	
Arg	Met	Glu	Ile	Phe	Arg	Leu	Asn	Thr	Ile	Pro	Leu	Phe	Val	Gln	Leu
			580					585					590		
Leu	Tyr	Ser	Val	Glu	Asn	Ile	Gln	Arg	Val	Ala	Ala	Gly	Val	Leu	
	595					600					605				
Cys	Glu	Leu	Ala	Gln	Asp	Lys	Glu	Ala	Ala	Asp	Ala	Ile	Asp	Ala	Glu
610					615					620					
Gly	Ala	Ser	Ala	Pro	Leu	Met	Glu	Leu	Leu	His	Ser	Arg	Asn	Glu	Gly
625					630					635					640
Thr	Ala	Thr	Tyr	Ala	Ala	Ala	Val	Leu	Phe	Arg	Ile	Ser	Glu	Asp	Lys
			645						650					655	
Asn	Pro	Asp	Tyr	Arg	Lys	Arg	Val	Ser	Val	Glu	Leu	Thr	Asn	Ser	Leu
			660					665					670		
Phe	Lys	His	Asp	Pro	Ala	Ala	Trp	Glu	Ala	Ala	Gln	Ser	Met	Ile	Pro
		675					680					685			
Ile	Asn	Glu	Pro	Tyr	Gly	Asp	Asp	Met	Asp	Ala	Thr	Tyr	Arg	Pro	Met
690					695					700					
Tyr	Ser	Ser	Asp	Val	Pro	Leu	Asp	Pro	Leu	Glu	Met	His	Met	Asp	Met
705					710					715					720
Asp	Gly	Asp	Tyr	Pro	Ile	Asp	Thr	Tyr	Ser	Asp	Gly	Leu	Arg	Pro	Pro
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<210> 408
 <211> 3192
 <212> DNA
 <213> Homo sapiens

<400> 408	
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<210> 409

<211> 745

<212> PRT

<213> Homo sapiens

<400> 409

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Gln	Gln	Thr	Tyr	Thr	Tyr	Asp	Ser	Gly	Ile	His	Ser	Gly	Ala	Asn	Thr
			20					25					30		

Cys	Val	Pro	Ser	Val	Ser	Ser	Lys	Gly	Ile	Met	Glu	Glu	Asp	Glu	Ala	35	40	45
Cys	Gly	Arg	Gln	Tyr	Thr	Leu	Lys	Lys	Thr	Thr	Thr	Tyr	Thr	Gln	Gly	50	55	60
Val	Pro	Pro	Ser	Gln	Gly	Asp	Leu	Glu	Tyr	Gln	Met	Ser	Thr	Thr	Ala	65	70	75
Arg	Ala	Lys	Arg	Val	Arg	Glu	Ala	Met	Cys	Pro	Gly	Val	Ser	Gly	Glu	85	90	95
Asp	Ser	Ser	Leu	Leu	Leu	Ala	Thr	Gln	Val	Glu	Gly	Gln	Ala	Thr	Asn	100	105	110
Leu	Gln	Arg	Leu	Ala	Glu	Pro	Ser	Gln	Leu	Leu	Lys	Ser	Ala	Ile	Val	115	120	125
His	Leu	Ile	Asn	Tyr	Gln	Asp	Asp	Ala	Glu	Leu	Ala	Thr	Arg	Ala	Leu	130	135	140
Pro	Glu	Leu	Thr	Lys	Leu	Leu	Asn	Asp	Glu	Asp	Pro	Val	Val	Val	Thr	145	150	155
Lys	Ala	Ala	Met	Ile	Val	Asn	Gln	Leu	Ser	Lys	Lys	Glu	Ala	Ser	Arg	165	170	175
Arg	Ala	Leu	Met	Gly	Ser	Pro	Gln	Leu	Val	Ala	Ala	Val	Val	Arg	Thr	180	185	190
Met	Gln	Asn	Thr	Ser	Asp	Leu	Asp	Thr	Ala	Arg	Cys	Thr	Thr	Ser	Ile	195	200	205
Leu	His	Asn	Leu	Ser	His	His	Arg	Glu	Gly	Leu	Leu	Ala	Ile	Phe	Lys	210	215	220
Ser	Gly	Gly	Ile	Pro	Ala	Leu	Val	Arg	Met	Leu	Ser	Ser	Pro	Val	Glu	225	230	235
Ser	Val	Leu	Phe	Tyr	Ala	Ile	Thr	Thr	Leu	His	Asn	Leu	Leu	Leu	Tyr	245	250	255
Gln	Glu	Gly	Ala	Lys	Met	Ala	Val	Arg	Leu	Ala	Asp	Gly	Leu	Gln	Lys	260	265	270
Met	Val	Pro	Leu	Leu	Asn	Lys	Asn	Asn	Pro	Lys	Phe	Leu	Ala	Ile	Thr	275	280	285
Thr	Asp	Cys	Leu	Gln	Leu	Leu	Ala	Tyr	Gly	Asn	Gln	Glu	Ser	Lys	Leu	290	295	300
Ile	Ile	Leu	Ala	Asn	Gly	Gly	Pro	Gln	Ala	Leu	Val	Gln	Ile	Met	Arg	305	310	315
Asn	Tyr	Ser	Tyr	Glu	Lys	Leu	Leu	Trp	Thr	Thr	Ser	Arg	Val	Leu	Lys	325	330	335
Val	Leu	Ser	Val	Cys	Pro	Ser	Asn	Lys	Pro	Ala	Ile	Val	Glu	Ala	Gly	340	345	350
Gly	Met	Gln	Ala	Leu	Gly	Lys	His	Leu	Thr	Ser	Asn	Ser	Pro	Arg	Leu	355	360	365
Val	Gln	Asn	Cys	Leu	Trp	Thr	Leu	Arg	Asn	Leu	Ser	Asp	Val	Ala	Thr	370	375	380
Lys	Gln	Glu	Gly	Leu	Glu	Ser	Val	Leu	Lys	Ile	Leu	Val	Asn	Gln	Leu	385	390	395
Ser	Val	Asp	Asp	Val	Asn	Val	Leu	Thr	Cys	Ala	Thr	Gly	Thr	Leu	Ser	405	410	415
Asn	Leu	Thr	Cys	Asn	Asn	Ser	Lys	Asn	Lys	Thr	Leu	Val	Thr	Gln	Asn	420	425	430
Ser	Gly	Val	Glu	Ala	Leu	Ile	His	Ala	Ile	Leu	Arg	Ala	Gly	Asp	Lys	435	440	445
Asp	Asp	Ile	Thr	Glu	Pro	Ala	Val	Cys	Ala	Leu	Arg	His	Leu	Thr	Ser	450	455	460
Arg	His	Pro	Glu	Ala	Glu	Met	Ala	Gln	Asn	Ser	Val	Arg	Leu	Asn	Tyr	465	470	475
Gly	Ile	Pro	Ala	Ile	Val	Lys	Leu	Leu	Asn	Gln	Pro	Asn	Gln	Trp	Pro	485	490	495
Leu	Val	Lys	Ala	Thr	Ile	Gly	Leu	Ile	Arg	Asn	Leu	Ala	Leu	Cys	Pro	500	505	510

Ala Asn His Ala Pro Leu Gln Glu Ala Ala Val Ile Pro Arg Leu Val
515 520 525
Gln Leu Leu Val Lys Ala His Gln Asp Ala Gln Arg His Val Ala Ala
530 535 540
Gly Thr Gln Gln Pro Tyr Thr Asp Gly Val Arg Met Glu Glu Ile Val
545 550 555 560
Glu Gly Cys Thr Gly Ala Leu His Ile Leu Ala Arg Asp Pro Met Asn
565 570 575
Arg Met Glu Ile Phe Arg Leu Asn Thr Ile Pro Leu Phe Val Gln Leu
580 585 590
Leu Tyr Ser Ser Val Glu Asn Ile Gln Arg Val Ala Ala Gly Val Leu
595 600 605
Cys Glu Leu Ala Gln Asp Lys Glu Ala Ala Asp Ala Ile Asp Ala Glu
610 615 620
Gly Ala Ser Ala Pro Leu Met Glu Leu Leu His Ser Arg Asn Glu Gly
625 630 635 640
Thr Ala Thr Tyr Ala Ala Ala Val Leu Phe Arg Ile Ser Glu Asp Lys
645 650 655
Asn Pro Asp Tyr Arg Lys Arg Val Ser Val Glu Leu Thr Asn Ser Leu
660 665 670
Phe Lys His Asp Pro Ala Ala Trp Glu Ala Ala Gln Ser Met Ile Pro
675 680 685
Ile Asn Glu Pro Tyr Gly Asp Asp Met Asp Ala Thr Tyr Arg Pro Met
690 695 700
Tyr Ser Ser Asp Val Pro Leu Asp Pro Leu Glu Met His Met Asp Met
705 710 715 720
Asp Gly Asp Tyr Pro Ile Asp Thr Tyr Ser Asp Gly Leu Arg Pro Pro
725 730 735
Tyr Pro Thr Ala Asp His Met Leu Ala
740 745

<210> 410
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(495)
<223> n = g, a, c or t

<400> 410
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cgacaccac gtgtctgcat gatccccgca gttgtgtgct acgcacgtag gacgagcggt 180
ggaatgcaag gttgccccan atcggtcccg canggcttca ccgtctgggt tggatgacct 240
atctaagggg aagtttcgtg cttctaaacg attcttcttc tccaaagggg ctcaaggggt 300
cggtagacta tgggagcgat tttgacctta aaaaggttcn cttcccaagn gagagaaggg 360
cccaacggga gtccttgga cgaagcgagg gaggctctgtg cttttactca acatctgtct 420
taatcaatag agtgncaaga tgctctatcg tgctttcccc ttcagagaag tgaggttcaa 480
ttgtaacagc ataac 495

<210> 411
<211> 570
<212> DNA
<213> Homo sapiens

<400> 411
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gaacaacaaa gaggaaggggt ctgtccatga tgatctctc gggggccatg cgggctgaga 180

ctatgacagc	tgtggatgag	gaggccaccg	tgccactctc	gttcacctcg	atcttcactt	240
tctgcagcgc	ctgcgcgacg	tgagaggtc	ttgggtctgaa	agactcgtga	agtcagcctg	300
aaactgtctg	aacatgtcgg	tcattcccag	gttctctagg	ggcttcctga	ggtcgacttc	360
agtctccagg	gagaacttgg	gcagaaccag	gaggcggggc	agcctggtca	tggtgccttt	420
ccagtggctg	atgagctggg	cactcagaat	gttggtgagg	gcagagagag	gcacctcttt	480
ttcataaggg	gcagcaatga	acatgctgag	ggtgtccccc	tggtagggca	gttccaggat	540
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<210> 412
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 412						
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ctccagcacc	caccgcccgc	tcttccacaa	atcagacggc	agcaactgtct	ctgtgccccat	180
gatggctcag	accaacaagt	tcaactatac	tgagttcacc	acgcccgatg	gccattacta	240
cgacatcctg	gaactgccct	accacgggga	caccctcagc	atgttcattg	ctgcccctta	300
tgaaaaagag	gtgcctctct	ctgccctcac	caacattctg	agtgccccagc	tccatcaagc	360
cactggaaaag	gcaacatgac	cagggggc				387

<210> 413
 <211> 543
 <212> DNA
 <213> Homo sapiens

<400> 413						
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gatggctcag	accaacaagt	tcaactatac	tgagttcacc	acgcccgatg	gccattacta	240
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gactgaagtc	gacctcagga	agcccctaga	gaacctggga	atgaccgaca	tggttcagact	480
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gag						543

<210> 414
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 414						
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gatggctcag	accaacaagt	tcaactatac	tgaggttcac	cacgcccgat	ggccattact	240
acgacatccc	tggaactgcc	ctaccacggg	gacaccctca	gcatgttcat	tgctgcccct	300
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<210> 415
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 415						
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ccagatgaag	gcgtctttcc	ccaggggtca	ggggttccat	cacttgcccc	atgaaaagga	480
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<210> 416
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 416						
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cagatctggg	ttaccatctt	ttaacaaaag	gcaaagtgtc	tctcttcctt	cagaaagagt	360
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<210> 417
 <211> 523
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(523)
 <223> n = g, a, c or t

<400> 417						
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agaggccaag	gtcttggaga	cagatctggg	ttaccatctt	ttaacaaaag	gcaaagtgtc	480
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<210> 418
 <211> 486
 <212> DNA
 <213> Homo sapiens

<400> 418						
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gttcct						486

<210> 419
 <211> 2876
 <212> DNA
 <213> Homo sapiens

<400> 419

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ggagttcaag	accagcctgg	gcaacatacc	aagaccccg	tctctttaa	aatatatata	2760
ttttaaatat	acttaaatat	atattttctaa	tatctttaa	tatatatata	tattttaaag	2820
accaattttat	gggagaattg	cacacagatg	tgaaatgaat	gtaatcta	agaagc	2876

<210> 420
 <211> 402
 <212> PRT
 <213> Homo sapiens

<400> 420

Met	Gln	Met	Ser	Pro	Ala	Leu	Thr	Cys	Leu	Val	Leu	Gly	Leu	Ala	Leu
1				5					10					15	
Val	Phe	Gly	Glu	Gly	Ser	Ala	Val	His	His	Pro	Pro	Ser	Tyr	Val	Ala
			20					25					30		
His	Leu	Ala	Ser	Asp	Phe	Gly	Val	Arg	Val	Phe	Gln	Gln	Val	Ala	Gln
		35					40					45			
Ala	Ser	Lys	Asp	Arg	Asn	Val	Val	Phe	Ser	Pro	Tyr	Gly	Val	Ala	Ser
		50				55					60				
Val	Leu	Ala	Met	Leu	Gln	Leu	Thr	Thr	Gly	Gly	Glu	Thr	Gln	Gln	Gln
65					70					75					80
Ile	Gln	Ala	Ala	Met	Gly	Phe	Lys	Ile	Asp	Asp	Lys	Gly	Met	Ala	Pro
				85					90					95	
Ala	Leu	Arg	His	Leu	Tyr	Lys	Glu	Leu	Met	Gly	Pro	Trp	Asn	Lys	Asp
			100					105					110		
Glu	Ile	Ser	Thr	Thr	Asp	Ala	Ile	Phe	Val	Gln	Arg	Asp	Leu	Lys	Leu
		115					120					125			
Val	Gln	Gly	Phe	Met	Pro	His	Phe	Phe	Arg	Leu	Phe	Arg	Ser	Thr	Val
	130					135					140				
Lys	Gln	Val	Asp	Phe	Ser	Glu	Val	Glu	Arg	Ala	Arg	Phe	Ile	Ile	Asn
145					150					155					160
Asp	Trp	Val	Lys	Thr	His	Thr	Lys	Gly	Met	Ile	Ser	Asn	Leu	Leu	Gly
				165					170					175	
Lys	Gly	Ala	Val	Asp	Gln	Leu	Thr	Arg	Leu	Val	Leu	Val	Asn	Ala	Leu
			180					185					190		
Tyr	Phe	Asn	Gly	Gln	Trp	Lys	Thr	Pro	Phe	Pro	Asp	Ser	Ser	Thr	His
		195					200					205			
Arg	Arg	Leu	Phe	His	Lys	Ser	Asp	Gly	Ser	Thr	Val	Ser	Val	Pro	Met
		210				215					220				
Met	Ala	Gln	Thr	Asn	Lys	Phe	Asn	Tyr	Thr	Glu	Phe	Thr	Thr	Pro	Asp
225					230					235					240
Gly	His	Tyr	Tyr	Asp	Ile	Leu	Glu	Leu	Pro	Tyr	His	Gly	Asp	Thr	Leu
				245					250					255	
Ser	Met	Phe	Ile	Ala	Ala	Pro	Tyr	Glu	Lys	Glu	Val	Pro	Leu	Ser	Ala
			260					265					270		
Leu	Thr	Asn	Ile	Leu	Ser	Ala	Gln	Leu	Ile	Ser	His	Trp	Lys	Gly	Asn
		275					280					285			
Met	Thr	Arg	Leu	Pro	Arg	Leu	Leu	Val	Leu	Pro	Lys	Phe	Ser	Leu	Glu
		290				295					300				
Thr	Glu	Val	Asp	Leu	Arg	Lys	Pro	Leu	Glu	Asn	Leu	Gly	Met	Thr	Asp
305					310					315					320
Met	Phe	Arg	Gln	Phe	Gln	Ala	Asp	Phe	Thr	Ser	Leu	Ser	Asp	Gln	Glu
				325					330					335	
Pro	Leu	His	Val	Ala	Gln	Ala	Leu	Gln	Lys	Val	Lys	Ile	Glu	Val	Asn
			340					345					350		
Glu	Ser	Gly	Thr	Val	Ala	Ser	Ser	Ser	Thr	Ala	Val	Ile	Val	Ser	Ala
		355					360					365			
Arg	Met	Ala	Pro	Glu	Glu	Ile	Ile	Met	Asp	Arg	Pro	Phe	Leu	Phe	Val
		370				375					380				
Val	Arg	His	Asn	Pro	Thr	Gly	Thr	Val	Leu	Phe	Met	Gly	Gln	Val	Met
385					390					395					400
Glu	Pro														

<210> 421

<211> 428

<212> DNA

<213> Homo sapiens

<400> 421

acactgccct	ccttcttgag	gggtcccagcc	tgcatgatg	attcccgcga	tcaggtcttc	60
ccgggtatcgg	taacacatct	ccttaaagag	actggctgct	gtgtggacca	gtggaggctc	120

attcagttca	atgctgtgga	aaccgagctg	gtaggtgaca	gcatacagcta	ctgcctgggt	180
atcagcagct	gagcctgagc	gacagcagaa	aatgcggtcg	tgaatagggtg	tcagcttgtc	240
agtcactcga	ttggcgatgt	aggacccagt	ggttggttctg	gagtcgcgcc	ccagaaccac	300
gccccgtca	aactgcacgg	ccatgatagt	ggtcccagtg	gaaacttctc	ggctttccca	360
gtctggagt	aacgcctccg	gcccccaagc	cggtgctggc	ccggctcccc	gagcagctag	420
taaggtag						428

<210> 422
 <211> 622
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(622)
 <223> n = g, a, c or t

<400> 422						
cgaactgctc	ggtgcccgc	gtatccagga	tctccagcac	cgacggcgac	gagtccacct	60
caatctcctt	gcggtaaaag	tcttcgatgg	tcgggtcgta	cttctcgatg	aaggagccc	120
tcacgaactg	cacggtgagc	gcggacttgc	ccacgcgcgc	cgagcccagc	accaccactt	180
tgtactctct	catggctccg	tcagcgtctt	cgccgcgcct	gccgcggccc	cgtcggggct	240
gcgcgcggga	aaggctgggc	ttggcgggct	ggacttctct	tcccccttct	cagctacgca	300
ggaaaaaacc	aggagagagc	aaccagaga	acgcaggggc	gaaaccaccg	aaacggaagg	360
cgggccgcca	ggcccggccc	ggcggccggc	gggcaaggcg	ntaatccctg	ggggctagca	420
cggggtcccc	ggggcccacg	gaaggcaagg	tcaccggnag	gcaggcaagg	acangacagc	480
cccngngnga	cgggcagaaa	acccgggaan	gaggggacaa	attggcccac	ggcaagcctt	540
tggcgncacg	ngaagaaaaa	ccacaagggc	aacaaggggg	gngttaacgn	cattaaggaa	600
taacacagcg	cggagccgag	ag				622

<210> 423
 <211> 515
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(515)
 <223> n = g, a, c or t

<400> 423						
cgcagctgcg	ggcattgtcc	tctcggttcg	ccgcccgggc	tgctgctgcc	gccgcggact	60
gctgcggggc	ccggacccgc	accccaggga	tacgtgcccg	ccgtcgccgg	ccggcccggg	120
cccggcctcc	gttcggtggt	ttccgccttg	cgttctcttg	ggtgctctct	cctgggtttt	180
tctgctgtag	ctgaggaagg	ggaagagaag	tccagccgcc	aagcccagcc	ttccccggcg	240
cagccccgac	ggggccgccg	gacaggcgcg	ggcggagaag	cgctgacgga	gccatgagga	300
gagtacacaa	gtggtggtgc	tagggctcga	ggcaggagtg	gggcaaagtc	cgcagacttc	360
aaccgtggca	agatacggtt	ggaacacggg	gcatacttca	atcgnagaaa	aggtacgaac	420
ccgaacncat	cgaaagaact	ttttaaccgg	ccaaggnagn	aatggagagt	gggacctcag	480
gnctacgncc	cgtcccggga	ngcttggaag	aatcc			515

<210> 424
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(458)
 <223> n = g, a, c or t

```

<400> 424
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccg      120
tcacgaactg cacgggtgag cagcggactt gcccagagac cggaccgagc ccagacacac      180
accactatat gtactcatct caatggcatc cgncagagct catcgncga cagacctgcc      240
gnnggacccc gatacagggg ggcatgtcag cgcgngggaa aagggcattng gggncatagg      300
acagggacaa tagggaaacag ntatcatcat tcacacacat atcgcatcaa agcnatacgc      360
aaagggaaaa acaanaacgc ccaagagaag aaagaggcaa aacccccaaag gaanngaaaa      420
caacaggggcc aacaagaggg gaccggggag gaaaaaaaa      458

```

```

<210> 425
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(447)
<223> n = g, a, c or t

```

```

<400> 425
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccg      120
tcacgaactg cacgggtgagc gcggacttgc ccacgccgcc cgagcccagc accaccactt      180
tgtactctct catgggtccg tcagcgtctc cgccgcgcct gccgcggccc cgtcggggct      240
gcgcgcgggg aaggctgggc ttggcaggct ggacttctct tcccttctct cagctacgca      300
ggaaaaaccc aggagagagc aaccagaga acgcagggcg ggaaaccacc gaacggaggc      360
cgggcgcggg gccgtccggc cggacgangg cagtgcgggg gcgaaccgag aggaacaaat      420
gcccagagagg cccttgcggc cgaaaaa      447

```

```

<210> 426
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(382)
<223> n = g, a, c or t

```

```

<400> 426
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccg      120
tcacgaactg cacgggtgagc gcggacttgc ccacgccgcc cgagcccagc accaccactt      180
tgtactctct catgggtccg tcagcgtctc cgccgcgcct gccgngggccc cgtcggggct      240
gcgcgcgggg aaggctgggc ttggcggctg gacttctctt ccccttctct agntacgcag      300
gaaaaaccca ggagagagc aaccaggag aacgcagggc ggaaagcacg cggaacggag      360
tgccggggcgc cgggccgggc cg      382

```

```

<210> 427
<211> 560
<212> DNA
<213> Homo sapiens

```

```

<400> 427
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccg      120
tcacgaactg cacgggtgagc gcggacttgc ccacgccgcc cgagcccagc accaccactt      180
tgtactctct catgggtccg tcagcgtctc cgccgcgcct gccgcggccc cgtcggggct      240
gcgcgcgggg aaggctgggc ttggcggctg gacttctctt ccccttctct agctacgcag      300
gaaaaaccca ggagagagca acccagagaa cgcagggcgg aaaccaccga acggaggccg      360

```

ggcgccgggc	cggccggcgg	cggcggcagc	gtatccctgg	ggtgcggggtc	cgggccccgc	420
agcagtccgc	ggcggcagca	gcagcccggg	cggcgaaccg	agaggacaat	gccccgagcc	480
tgcgccgcag	aaccagcac	agtggttaga	tagataaagc	ggcgctcgac	tagtctgagg	540
tctgatactc	actgactgaa					560

<210> 428
 <211> 1733
 <212> DNA
 <213> Homo sapiens

<400> 428						
gcacgttccg	cggggactca	tgccacgcgc	gtcccggccc	gacgcgcaat	tagcagccac	60
ctccgcagcc	cgccgccacc	gcctccctgc	cctcccgggc	tgccgcagct	aggagctcca	120
gccgtcgcct	cgcgcaggct	gcgggcattg	tcctctcggt	tcgccgcccg	ggctgctgct	180
gccgccgcgg	actgctgcgg	ggcccggacc	cgcaccccag	ggatacgctg	ccgccgccgc	240
cggccggccc	ggcgcccggc	ctccgttcgg	tggtttccgc	cctgcgttct	ctgggttgct	300
ctctcctggg	tttttctgc	gtagctgagg	aaggggaaga	gaagtccagc	cgccaagccc	360
agccttcccc	ggcgcgcagc	cccgcggggg	ccgcggcagg	cgccgagaga	gcgctgacgg	420
agccatgaga	gagtacaaag	tggtgggtgct	gggctcgggc	ggcgtgggca	agtccgcgct	480
caccgtgcag	ttcgtgacgg	gctccttcat	cgagaagtac	gacccgacca	tcgaagactt	540
ttaccgcaag	gagattgagg	tggactcgtc	gccgtcgggtg	ctggagatcc	tggatacggc	600
gggcaccgag	cagttcgcgt	ccatgcggga	cctgtacatc	aagaacggcc	agggcttcat	660
cctggtctac	agcctcgtca	accagcagag	cttccaggac	atcaagccca	tgccgggacca	720
gacatccgc	gtgaagcggg	acgagcgcgt	gcccattgac	ctgggtgggca	acaaggtgga	780
cctggagggg	gagcgcgagg	tctcgtacgg	ggagggcaag	gccctggctg	aggagtggag	840
ctgccccttc	atggagacgt	cggccaaaaa	caaagcctcg	gtagacgagc	tatttgccga	900
gatcgtgcgg	cagatgaact	acgcggcgca	gcccacgggc	gatgagggct	gctgctcggc	960
ctgcgtgatc	ctctgaggcg	gccaccgcgc	gccggccgcg	ctctgcgcac	aaaagccaaa	1020
cgcattccgac	tctctaaatg	tgatttatct	cttgctttga	gattggagac	cactttgcat	1080
tgccacgggt	gtcttgggag	cccggctggc	ctccgcggcc	ggcgtccccct	gcctccaccc	1140
tgtgcccag	ggggtgtccg	gtcctgccc	tcgatactc	tggtggaaat	gtggctcttt	1200
gcagcatgta	cgtttctccc	tgattttggt	tgatgcata	ttccccgttt	aagtagccgt	1260
tagggcgcag	tatcggcagc	ttgacaccca	ccaagcaaaa	gtttcagcct	ggaaaaaaaa	1320
tgggggggaa	gggtggatga	aaaggaggga	gagaagggtg	aaatggtttt	tttttttttt	1380
tttctatttt	ctttcttttt	tttttttttt	ttttttgggtc	aacagccgtt	tttctagttc	1440
caagtttttaa	atacatggaa	ggaagtccgg	gagaaccata	tgaaggagca	ggaggagagg	1500
aagaaacttt	ttttccttct	tttcaggag	tagctggaaa	ttaagatcgg	gttccttttc	1560
tgccagcttg	gaagggcaac	cccatgactg	attgcgattc	tgaggatgtc	tatgcaaagt	1620
tggattcttg	ttacagtgtg	tccaatctga	agtattgcac	atctgaactg	ggactgttaa	1680
cactgatgcc	aatacagtgt	ggggtgccag	aaagtgtctg	ctgatatttg	tgg	1733

<210> 429
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 429															
Met	Arg	Glu	Tyr	Lys	Val	Val	Val	Leu	Gly	Ser	Gly	Gly	Val	Gly	Lys
1				5					10					15	
Ser	Ala	Leu	Thr	Val	Gln	Phe	Val	Thr	Gly	Ser	Phe	Ile	Glu	Lys	Tyr
				20					25				30		
Asp	Pro	Thr	Ile	Glu	Asp	Phe	Tyr	Arg	Lys	Glu	Ile	Glu	Val	Asp	Ser
				35					40				45		
Ser	Pro	Ser	Val	Leu	Glu	Ile	Leu	Asp	Thr	Ala	Gly	Thr	Glu	Gln	Phe
				50					55				60		
Ala	Ser	Met	Arg	Asp	Leu	Tyr	Ile	Lys	Asn	Gly	Gln	Gly	Phe	Ile	Leu
65					70				75					80	
Val	Tyr	Ser	Leu	Val	Asn	Gln	Gln	Ser	Phe	Gln	Asp	Ile	Lys	Pro	Met
				85					90					95	
Arg	Asp	Gln	Ile	Ile	Arg	Val	Lys	Arg	Tyr	Glu	Arg	Val	Pro	Met	Ile
				100					105					110	

Leu Val Gly Asn Lys Val Asp Leu Glu Gly Glu Arg Glu Val Ser Tyr
 115 120 125
 Gly Glu Gly Lys Ala Leu Ala Glu Glu Trp Ser Cys Pro Phe Met Glu
 130 135 140
 Thr Ser Ala Lys Asn Lys Ala Ser Val Asp Glu Leu Phe Ala Glu Ile
 145 150 155 160
 Val Arg Gln Met Asn Tyr Ala Ala Gln Pro Asn Gly Asp Glu Gly Cys
 165 170 175
 Cys Ser Ala Cys Val Ile Leu
 180

<210> 430
 <211> 563
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(563)
 <223> n = g, a, c or t

<400> 430
 cggcagaaaa cagagcctgc ctaaccaggc ccagccagtt ggtggggcca ggccaggacc 60
 acacagtccc cagactcagc tggaagtcta cctgctggac agcctccgcc aagatctaca 120
 ggacaaaggg agggagcaag ccctactcgg atggggcacg gactgtccac cttttctgat 180
 gtgtgttgct agcctgtgct gtggcataga catggatgcg aggaccactt tggagactgg 240
 ggtggcctca agagcacaca gagaagggaa gaaggggcca tcacaggatg ccagcccctg 300
 cctgggttgg gggcactcag ccacgaccag ccccttcctg ggtatttatt ctctatttat 360
 tggggatagg agaagaggca tcctgcctgg gtgggacagg cccttcagcc ccttctccnc 420
 tccccgcctg gccagggcag ggccacccca ctctacctcc ttagctttcc ctgtgccact 480
 ttgactcaga ggctgggagc atagcagagg ggccaggccc aggcagagct gacgggagggc 540
 cccagctctg aggggagggg gtc 563

<210> 431
 <211> 478
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(478)
 <223> n = g, a, c or t

<400> 431
 cggcagcaaa acagancctg cctaaccagg acccanccag ttggtggggc caggccagga 60
 ccacacagtc cccagactca gctggaagtc tacctgctgg acagcctccg ccaagatcta 120
 caggacaaaag ggagggagca agtcctactc ggatggggca cggactgtcc accttttctg 180
 atgtgtgttg tcagcctgtg ctgtggcata gacatggatg cgaggaccac tttggagact 240
 ggggtggcct caagagcaca cagagaaggg aagaaggggc catcacagga tgccagcccc 300
 tgccctgggtt gggggcactc agccacgacc agccccttcc tgggtattta ttctctattt 360
 attggggata ggagaagagg catcctgcct ggggtgggaca gccccttcag ccccttctcc 420
 nctccccgac tggccagggc agggccaccc cactctacct cctnanattc ccctgtgc 478

<210> 432
 <211> 743
 <212> DNA
 <213> Homo sapiens

```

<220>
<221> modified_base
<222> (1)...(743)
<223> n = g, a, c or t

<400> 432
gccagtgttt attagcaaga tggaacccaa aggcggctgt ggccctgggca gcagaaggcc      60
accaggagcc cccacccatc tacccaactg cccccagag ctaattacat ccacacccat      120
cccctgaagt ggtggacata agggagccct ggggagcctc taccggcccc aggcctctac      180
cacggacccc ctcccctcag agctggggcc tcccgtcagc tctgcctggg cctggccccct      240
ctgctatgct cccagcctct gagtcaaagt ggcacaggga aagctaagga ggtagagtgg      300
ggtggccctg ccctggccag gcggggaggg gagaaggggc tgaaggggct gtcccaccca      360
ggcaggatgc ctcttctcct atcccccaata aatagagaat aaatacccag gaaggggctg      420
gtcgtggctg agtgcccca acccaggcag gggctggcat cctgtgatgg ccccttcttc      480
ccttctctgt gtgctcttga ggccaccca gtctccaaag tggctcctgc atccatgtct      540
atgccacagc acaggctgac aacacacatc anaaaagggt gacagtccgt gccccatccg      600
agtagggctt gctccctccc tttgtcctgt agatcttggc ggangctgtc cagcagggtan      660
acttcagct gantctgggg actgtgtggg cctggcctgg cccaccaact ggntggcctg      720
gttaggcagg tctgttttct tgc                                     743

<210> 433
<211> 636
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(636)
<223> n = g, a, c or t

<400> 433
cggcagaaaa cagagcctgc ctaaccaggc ccagccagtt ggtggggcca ggccaggacc      60
acacagtccc cagactcagc tggaagtcta cctgctggac agcctccgcc aagatctaca      120
ggacaaaggg agggagcaag ccctactcgg atggggcacg gactgtccac cttttctgat      180
gtgtgttgct agcctgtgct gtggcataga catggatgcg aggaccactt tggagactgg      240
ggtggcctca agagcacaca gagaagggaa gaaggggcca tcacaggatg ccagccccctg      300
cctggggttg gggcactcag ccacgaccag ccccttcctg ggtatttatt ctctatttat      360
tggggatagg agaagaggca tcctgcctgg gtgggacagc cccttcagcc cttctccnc      420
tccccgcctg gccagggcag ggccacccca ctctacctcc ttagctttcc ctgtgccact      480
ttgactcaga ggctgggagc atagcagagg ggccaggccc aggcagagct gacgggaggc      540
cccagctctg aggggagggg gtccgtggta gaggcctggg gccggtagag gctccccagg      600
gtcccttat gtccaccact tcaggggatg ggtgtg                                     636

<210> 434
<211> 635
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(635)
<223> n = g, a, c or t

<400> 434
gccagtgttt attagcaaga tggaacccaa aggcggctgt ggccctgggca gcagaaggcc      60
accaggagcc cccacccatc tacccaactg cccccagag ctaattacat ccacacccat      120
cccctgaagt ggtggacata agggagccct ggggagcctc taccggcccc aggcctctac      180
cacggacccc ctcccctcag agctggggcc tcccgtcagc tctgcctggg cctggccccct      240
ctgctatgct cccagcctct gagtcaaagt ggcacaggga aagctaagga ggtagagtgg      300
ggtggccctg ccctggccag gcggggaggg gagaaggggc tgaaggggct gtcccaccca      360
ggcaggatgc ctcttctcct atcccccaata aatagagaat aaatacccag gaaggggctg      420

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gtcgtggctg	agtgccccca	acccaggcag	gggctggcat	cctgtgatgg	ccccctcttc	480
ccttctctgt	gtgctcttga	ggncacccca	gtctccaaag	tggtcctcgc	atccatgtct	540
atgccacagc	acaggctgac	aacacacatc	anaaaaaggtg	gacagtccgt	gccccatccg	600
antagggctt	gtccctccc	tttgtcctgt	aaatc			635

<210> 435
 <211> 586
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(586)
 <223> n = g, a, c or t

<400> 435						
gccagtgttt	attagcaaga	tggaacccaa	aggcggctgt	ggcctgggca	gcagaaggcc	60
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cccctgaagt	ggtggacata	agggagccct	ggggagcctc	taccggcccc	aggcctctac	180
cacggacccc	ctccccctcag	agctggggcc	tcccgtcagc	tctgcctggg	cctggccccct	240
ctgctatgct	cccagcctct	gagtcaaagt	ggcacaggga	aagctaanga	ggtagagtgg	300
ggtggccctg	ccctggccag	gcggggaggg	gagaaggggc	tgaaggggct	gtcccaccca	360
ggcaggatgc	ctcttctcct	atcccccaata	aatagagaat	aaatacccag	naaggggctg	420
gtcgtggctg	agtgccccca	acccangcag	gggctggcat	cctgtgatgg	ccccctcttc	480
ccttctctgt	gtgctcttga	ggccacccca	gtctccaaag	tggtcctcgc	atccatgtct	540
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<210> 436
 <211> 748
 <212> DNA
 <213> Homo sapiens

<400> 436						
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cccctgaagt	ggtggacata	agggagccct	ggggagcctc	taccggcccc	aggcctctac	180
cacggacccc	ctccccctcag	agctggggcc	tcccgtcagc	tctgcctggg	cctggccccct	240
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ggtggccctg	ccctggccag	gcggggaggg	gagaaggggc	tgaaggggct	gtcccaccca	360
ggcaggatgc	ctcttctcct	atcccccaata	aatagagaat	aaatacccag	gaaggggctg	420
gtcgtggctg	agtgccccca	acccaggcag	gggctggcat	cctgtgatgg	ccccctcttc	480
ccttctctgt	gtgctcttga	ggccacccca	gtctccaaag	tggtcctcgc	atccatgtct	540
atgccacagc	acaggctgac	aacacacatc	agaaaaggtg	gacagtccgt	gccccatccg	600
agtagggctt	gtcctctccc	ttttgtcctg	tagatcttgg	cggaggctgt	ccagcaggta	660
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<210> 437
 <211> 3552
 <212> DNA
 <213> Homo sapiens

<400> 437						
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ggagaaggag	taacccactt	tattggccac	agatgcaggg	gagaaaggag	aaagcatgct	240
gggagctgga	aagagcccta	agatcacctg	gtttctagag	agtggagcct	gcttctctgcc	300
taggccccct	ccacaatgct	tgtcgcgggt	cttcttctct	gggcttccct	actgactggg	360
gcctggccat	ccttccctac	ccaggaccac	ctcccggcca	cgccccgggt	acggctctca	420
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Trp	Pro	Ser	Phe	Pro	Thr	Gln	Asp	His	Leu	Pro	Ala	Thr	Pro	Arg	Val
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Arg	Leu	Ser	Phe	Lys	Glu	Leu	Lys	Ala	Thr	Gly	Thr	Ala	His	Phe	Phe
		35					40					45			
Asn	Phe	Leu	Leu	Asn	Thr	Thr	Asp	Tyr	Arg	Ile	Leu	Leu	Lys	Asp	Glu
	50					55					60				
Asp	His	Asp	Arg	Met	Tyr	Val	Gly	Ser	Lys	Asp	Tyr	Val	Leu	Ser	Leu
65					70					75					80
Asp	Leu	His	Asp	Ile	Asn	Arg	Glu	Pro	Leu	Ile	Ile	His	Trp	Ala	Ala
				85					90					95	
Ser	Pro	Gln	Arg	Ile	Glu	Glu	Cys	Val	Leu	Ser	Gly	Lys	Asp	Val	Asn
			100					105					110		
Gly	Glu	Cys	Gly	Asn	Phe	Val	Arg	Leu	Ile	Gln	Pro	Trp	Asn	Arg	Thr
		115					120					125			
His	Leu	Tyr	Val	Cys	Gly	Thr	Gly	Ala	Tyr	Asn	Pro	Met	Cys	Thr	Tyr
	130					135					140				
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145					150					155					160
Glu	Arg	Leu	Glu	Ser	Gly	Lys	Gly	Lys	Cys	Pro	Tyr	Asp	Pro	Lys	Leu
				165					170					175	
Asp	Thr	Ala	Ser	Ala	Leu	Ile	Asn	Glu	Glu	Leu	Tyr	Ala	Gly	Val	Tyr
			180					185					190		
Ile	Asp	Phe	Met	Gly	Thr	Asp	Ala	Ala	Ile	Phe	Arg	Thr	Leu	Gly	Lys
		195					200					205			
Gln	Thr	Ala	Met	Arg	Thr	Asp	Gln	Tyr	Asn	Ser	Arg	Trp	Leu	Asn	Asp
	210					215					220				
Pro	Ser	Phe	Ile	His	Ala	Glu	Leu	Ile	Pro	Asp	Ser	Ala	Glu	Asn	Asp
225					230					235					240
Asp	Lys	Leu	Tyr	Phe	Phe	Phe	Arg	Glu	Arg	Ser	Ala	Glu	Ala	Pro	Gln
				245					250					255	
Ser	Pro	Ala	Val	Tyr	Ala	Arg	Ile	Gly	Arg	Ile	Cys	Leu	Asn	Asp	Asp
			260					265					270		
Gly	Gly	His	Cys	Cys	Leu	Val	Asn	Lys	Trp	Ser	Thr	Phe	Leu	Lys	Ala
		275					280					285			
Arg	Leu	Val	Cys	Ser	Val	Pro	Gly	Glu	Asp	Gly	Ile	Glu	Thr	His	Phe
	290					295					300				
Asp	Glu	Leu	Gln	Asp	Val	Phe	Val	Gln	Gln	Thr	Gln	Asp	Val	Arg	Asn
305					310					315					320
Pro	Val	Ile	Tyr	Ala	Val	Phe	Thr	Ser	Ser	Gly	Ser	Val	Phe	Arg	Gly
				325					330					335	
Ser	Ala	Val	Cys	Val	Tyr	Ser	Met	Ala	Asp	Ile	Arg	Met	Val	Phe	Asn
			340					345					350		
Gly	Pro	Phe	Ala	His	Lys	Glu	Gly	Pro	Asn	Tyr	Gln	Trp	Met	Pro	Phe
		355					360					365			
Ser	Gly	Lys	Met	Pro	Tyr	Pro	Arg	Pro	Gly	Thr	Cys	Pro	Gly	Gly	Thr
	370					375					380				
Phe	Thr	Pro	Ser	Met	Lys	Ser	Thr	Lys	Asp	Tyr	Pro	Asp	Glu	Val	Ile
385					390					395					400
Asn	Phe	Met	Arg	Ser	His	Pro	Leu	Met	Tyr	Gln	Ala	Val	Tyr	Pro	Leu
				405					410					415	
Gln	Arg	Arg	Pro	Leu	Val	Val	Arg	Thr	Gly	Ala	Pro	Tyr	Arg	Leu	Thr
			420					425					430		
Thr	Ile	Ala	Val	Asp	Gln	Val	Asp	Ser	Ala	Asp	Gly	Arg	Tyr	Glu	Val
	435					440						445			
Leu	Phe	Leu	Gly	Thr	Asp	Arg	Gly	Thr	Val	Gln	Lys	Val	Ile	Val	Leu
	450					455					460				
Pro	Lys	Asp	Asp	Gln	Glu	Met	Glu	Glu	Leu	Met	Leu	Glu	Glu	Val	Glu
465					470					475					480
Val	Phe	Lys	Asp	Pro	Ala	Pro	Val	Lys	Thr	Met	Thr	Ile	Ser	Ser	Lys
				485					490					495	

Arg	Gln	Gln	Leu	Tyr	Val	Ala	Ser	Ala	Val	Gly	Val	Thr	His	Leu	Ser
			500					505					510		
Leu	His	Arg	Cys	Gln	Ala	Tyr	Gly	Ala	Ala	Cys	Ala	Asp	Cys	Cys	Leu
		515					520					525			
Ala	Arg	Asp	Pro	Tyr	Cys	Ala	Trp	Asp	Gly	Gln	Ala	Cys	Ser	Arg	Tyr
	530					535					540				
Thr	Ala	Ser	Ser	Lys	Arg	Arg	Ser	Arg	Arg	Gln	Asp	Val	Arg	His	Gly
545					550					555					560
Asn	Pro	Ile	Arg	Gln	Cys	Arg	Gly	Phe	Asn	Ser	Asn	Ala	Asn	Lys	Asn
				565					570					575	
Ala	Val	Glu	Ser	Val	Gln	Tyr	Gly	Val	Ala	Gly	Ser	Ala	Ala	Phe	Leu
			580					585					590		
Glu	Cys	Gln	Pro	Arg	Ser	Pro	Gln	Ala	Thr	Val	Lys	Trp	Leu	Phe	Gln
		595					600					605			
Arg	Asp	Pro	Gly	Asp	Arg	Arg	Arg	Glu	Ile	Arg	Ala	Glu	Asp	Arg	Phe
	610					615					620				
Leu	Arg	Thr	Glu	Gln	Gly	Leu	Leu	Leu	Arg	Ala	Leu	Gln	Leu	Ser	Asp
625					630					635					640
Arg	Gly	Leu	Tyr	Ser	Cys	Thr	Ala	Thr	Glu	Asn	Asn	Phe	Lys	His	Val
				645					650					655	
Val	Thr	Arg	Val	Gln	Leu	His	Val	Leu	Gly	Arg	Asp	Ala	Val	His	Ala
			660					665					670		
Ala	Leu	Phe	Pro	Pro	Leu	Ser	Met	Ser	Ala	Pro	Pro	Pro	Pro	Gly	Ala
		675					680					685			
Gly	Pro	Pro	Thr	Pro	Pro	Tyr	Gln	Glu	Leu	Ala	Gln	Leu	Leu	Ala	Gln
	690					695					700				
Pro	Glu	Val	Gly	Leu	Ile	His	Gln	Tyr	Cys	Gln	Gly	Tyr	Trp	Arg	His
705					710					715					720
Val	Pro	Pro	Ser	Pro	Arg	Glu	Ala	Pro	Gly	Ala	Pro	Arg	Ser	Pro	Glu
			725						730					735	
Pro	Gln	Asp	Gln	Lys	Lys	Pro	Arg	Asn	Arg	Arg	His	His	Pro	Pro	Asp
			740					745					750		

Thr

<210> 439
 <211> 2133
 <212> DNA
 <213> Homo sapiens

<400> 439

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gaagccctgc	ctgatgagac	agaggtggtg	gaagaaactg	tggcagaggt	gactgaggta	180
tctgtgggag	ctaactctgt	ccaggtggaa	gtaggagaat	ttgatgatgg	tgcagaggaa	240
accgaagagg	aggtggtggc	ggaaaatccc	tgccagaacc	accactgcaa	acacggcaag	300
gtgtgcgagc	tggatgagaa	caacaccccc	atgtgctgtg	gccaggaccc	caccagctgc	360
ccagccccc	ttggcgagtt	tgagaaggtg	tgcagcaatg	acaacaagac	cttcgactct	420
tcctgccact	tctttgccac	aaagtgcacc	ctggagggca	ccaagaaggg	ccacaagctc	480
cacctggact	acatcgggcc	ttgcaaatac	atccccctt	gcctggactc	tgagctgacc	540
gaattcccc	tgcgcatgcg	ggactggctc	aagaacgtcc	tggtcaccct	gtatgagagg	600
gatgaggaca	acaaccttct	gactgagaag	cagaagctgc	gggtgaagaa	gatccatgag	660
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aagaactata	acatgtacat	cttccttgta	cactggcagt	tcggccagct	ggaccagcac	780
cccattgacg	ggtacctctc	ccacaccgag	ctggctccac	tgctgtctcc	cctcatcccc	840
atggagcatt	gcaccaccg	ctttttcgag	acctgtgacc	tggacaatga	caagtacatc	900
gccctggatg	agtgggccc	ctgcttcggc	atcaagcaga	aggatatcga	caaggatctt	960
gtgatctaaa	tccactcctt	ccacagtacc	ggattctctc	tttaaccctc	cccttcgtgt	1020
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catagattta	agtgaataca	ttaacggtgc	taaaaatgaa	aattctaacc	caagacatga	1140
cattcttagc	tgtaacttaa	ctattaagtc	cttttcaca	cgcattaata	gtcccatttt	1200
tctcttgcca	ttttagctt	tgccattgt	cttattggca	catgggtgga	cacggatctg	1260

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agaacgtggg	ttgcctgagg	ctgtaactga	gagaaagatt	ctggggctgt	cttatgaaaa	1560
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gagatgtaga	aagttgtaaa	atagaaaaag	tggagttggg	gaatcggttg	ttctttcctc	1860
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tgttcttcta	ttaatcaaga	gaaacttcaa	agttaatggg	atggtcggat	ctcacaggct	1980
gagaactcgt	tcacctccaa	gcatttcatg	aaaaagctgc	ttcttattaa	tcatacaaac	2040
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ctgaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaa			2133

<210> 440
 <211> 303
 <212> PRT
 <213> Homo sapiens

<400> 440

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			20				25					30			
Glu	Thr	Val	Ala	Glu	Val	Thr	Glu	Val	Ser	Val	Gly	Ala	Asn	Pro	Val
		35					40					45			
Gln	Val	Glu	Val	Gly	Glu	Phe	Asp	Asp	Gly	Ala	Glu	Glu	Thr	Glu	Glu
		50				55					60				
Glu	Val	Val	Ala	Glu	Asn	Pro	Cys	Gln	Asn	His	His	Cys	Lys	His	Gly
65					70				75						80
Lys	Val	Cys	Glu	Leu	Asp	Glu	Asn	Asn	Thr	Pro	Met	Cys	Val	Cys	Gln
			85						90					95	
Asp	Pro	Thr	Ser	Cys	Pro	Ala	Pro	Ile	Gly	Glu	Phe	Glu	Lys	Val	Cys
			100					105					110		
Ser	Asn	Asp	Asn	Lys	Thr	Phe	Asp	Ser	Ser	Cys	His	Phe	Phe	Ala	Thr
		115					120					125			
Lys	Cys	Thr	Leu	Glu	Gly	Thr	Lys	Lys	Gly	His	Lys	Leu	His	Leu	Asp
		130				135					140				
Tyr	Ile	Gly	Pro	Cys	Lys	Tyr	Ile	Pro	Pro	Cys	Leu	Asp	Ser	Glu	Leu
145					150					155					160
Thr	Glu	Phe	Pro	Leu	Arg	Met	Arg	Asp	Trp	Leu	Lys	Asn	Val	Leu	Val
			165						170					175	
Thr	Leu	Tyr	Glu	Arg	Asp	Glu	Asp	Asn	Asn	Leu	Leu	Thr	Glu	Lys	Gln
			180					185					190		
Lys	Leu	Arg	Val	Lys	Lys	Ile	His	Glu	Asn	Glu	Lys	Arg	Leu	Glu	Ala
		195					200					205			
Gly	Asp	His	Pro	Val	Glu	Leu	Leu	Ala	Arg	Asp	Phe	Glu	Lys	Asn	Tyr
	210					215					220				
Asn	Met	Tyr	Ile	Phe	Pro	Val	His	Trp	Gln	Phe	Gly	Gln	Leu	Asp	Gln
225					230					235					240
His	Pro	Ile	Asp	Gly	Tyr	Leu	Ser	His	Thr	Glu	Leu	Ala	Pro	Leu	Arg
			245						250					255	
Ala	Pro	Leu	Ile	Pro	Met	Glu	His	Cys	Thr	Thr	Arg	Phe	Phe	Glu	Thr
		260						265					270		
Cys	Asp	Leu	Asp	Asn	Asp	Lys	Tyr	Ile	Ala	Leu	Asp	Glu	Trp	Ala	Gly
	275						280					285			
Cys	Phe	Gly	Ile	Lys	Gln	Lys	Asp	Ile	Asp	Lys	Asp	Leu	Val	Ile	
	290					295					300				

<210> 441
 <211> 373
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(373)
 <223> n = g, a, c or t

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<400> 441
ctggcagacc ctggcccaat cctaacagtg ctaactcaat tccatactcc tcctcatcac      60
ctgggtacct atgtgggacc cctggntgg tggcggctct ccaggaacac ccattatgcc      120
cagtcccga gattcaacaa attccagtga caacatctac acaatgatta atccagtgcc      180
gcctggaggg agccgggtcca acttcccgat ggggcccggc tcgaacgggc cgatgggcgg      240
catgggtggc atggagccac accacatgaa tggatcatta gggtcaggcg acatagacgg      300
ncttccaaaa aattctccta acaacataag tggcattagc aatcctccag gcacccctcg      360
agatgacggc gag                                           373
  
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<210> 442
 <211> 371
 <212> DNA
 <213> Homo sapiens

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<400> 442
ctcgccgtca tctcgagggg tgccctggagg attgctaatt ccacttatgt tgtagggaga      60
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catgccaccc atgccgcca tcggaccgtt cgagccggga cccatcgggga agttggaccg      180
gctgcctcca ggcggcactg gattaatcat tgtgtagatg ttgtcactgg aatttgttga      240
atctgcggga ctgggcataa tgggtgttcc tggaggaccg ccaccaccag ggggtccac      300
ataggtacca ggtgatgagg aggagtatgg aattgagtta gcactgttag gattgggcca      360
gggtctgcca g                                           371
  
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<210> 443
 <211> 372
 <212> DNA
 <213> Homo sapiens

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<400> 443
ctggcagacc ctggcccaat cctaacagtg ctaactcaat tccatactcc tcctcatcac      60
ctgggtaccta tgtgggaccc cctggctggt ggcggctctc caggaacacc cattatgccc      120
agtcccgcag attcaacaaa ttccagtga aacatctaca caatgattaa tccagtgcgc      180
cctggaggca gccgggtcca cttcccgatg ggtcccggtc cgaacgggtc gatgggcggc      240
atgggtggca tggagccaca ccacatgaat ggatcattag ggtcaggcga catagacgga      300
cttccaaaaa attctcctaa caacataagt ggcattagca atcctccagg caccctcga      360
gatgacggcg ag                                           372
  
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<210> 444
 <211> 375
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(375)
 <223> n = g, a, c or t

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<400> 444
ctcgnccatc atctcnaggg gtgcctgtaa ggatngcata agtgccactt atgttgtnag      60
gagaattttt tgggaagtccg tctatgtcgc ctgaccctaa tgatccattc atgtgggtgtg      120
gctccatgcc acccatgccc cccatcggac cgttcgagcc gggacccatc ggggaagttgg      180
  
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accggctgcc	tccaggcggc	actggattaa	tcattgtgta	gatgttgtca	ctggaatttg	240
ttgaatctgc	gggactgggc	ataatgggtg	ttcctggagg	accgccacca	ccaggggggtc	300
ccacataggt	accaggtgat	gaggaggagt	atggaattga	gttagcactg	ttaggattgg	360
gccagggtct	gccag					375

<210> 445
 <211> 1561
 <212> DNA
 <213> Homo sapiens

<400> 445						
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agggaggggg	gcgcggcgag	gagagcgcca	gcgagcgaga	gagcgagcga	gcgcggggga	120
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ggcggcgagg	ctcggcgccc	tcttccctgc	aaaccatgtt	tgccaaaggc	aaaggctcgg	240
cggtgccctc	ggatgggcag	gctcgggaaa	agttagcttt	atacgtctac	gaatatttac	300
tgcacgtagg	agcacagaaa	tctgcacaga	ccttcttata	ggagattcga	tgggaaaaaa	360
acatcacgtt	gggagaaccg	cctgggtttt	tgcactcgtg	gtggtgtgta	ttttgggacc	420
tttactgtgc	agctcctgaa	aggagagaca	cttgtgaaca	ttcaagtga	gcaaaagcct	480
ttcatgatta	tagtgagcga	gctgccccga	gccccgtgct	tggcaacatt	ccccccaacg	540
atgggatgcc	gggaggcccc	atccccgccg	gtttctttca	gggtcctccg	gggtcacagc	600
cctcgccgca	cgcacagcct	ccacctcaca	atcctagcag	catgatggga	ccccacagtc	660
agcctccggg	aggagttcct	gggacacagc	cattgctgcc	caattctatg	gatcccacac	720
gacaacaagg	ccacccaac	atgggaggat	caatgcagag	aatgaaccct	ccccgaggca	780
tggggcccat	gggtcccggc	ccacagaatt	acggcagcgg	catgagacca	ccacccaact	840
ccctcgcccc	cgccatgccc	gggattaaca	tgggcccggg	agctggcaga	ccctggccca	900
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cccctggtgg	tggcggtcct	ccaggaacac	ccattatgcc	cagtcccgca	gattcaacaa	1020
attccagtga	caacatctac	acaatgatta	atccagtgcc	gcctggaggc	agccggtcca	1080
acttcccgat	gggtcccggc	tcggacggtc	cgatgggcgg	catgggtggc	atggagccac	1140
accacatgaa	tggatcatta	gggtcaggcg	acatagacgg	acttccaaaa	aattctccta	1200
acaacataag	tggcattagc	aatcctccag	gcacccctcg	agatgacggc	gagctaggag	1260
ggaacttcct	ccactccttt	cagaacgaca	attattctcc	aagcatgacg	atgagtgtgt	1320
gactccccct	tctccgagac	gctgagagag	caggcattgc	aggcgggaag	atgccagaaa	1380
ttatgcaaga	agtgaggtgt	cattatccag	gagctggtgg	ggagggcatc	tccctgctcc	1440
cctcaacccc	ctcccacccc	atccacgccc	cctacctttc	ccaatttttag	tttcatgcaa	1500
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<210> 446
 <211> 368
 <212> PRT
 <213> Homo sapiens

<400> 446															
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			20					25					30		
Ala	Gln	Lys	Ser	Ala	Gln	Thr	Phe	Leu	Ser	Glu	Ile	Arg	Trp	Glu	Lys
			35				40					45			
Asn	Ile	Thr	Leu	Gly	Glu	Pro	Pro	Gly	Phe	Leu	His	Ser	Trp	Trp	Cys
			50			55					60				
Val	Phe	Trp	Asp	Leu	Tyr	Cys	Ala	Ala	Pro	Glu	Arg	Arg	Asp	Thr	Cys
65					70					75				80	
Glu	His	Ser	Ser	Glu	Ala	Lys	Ala	Phe	His	Asp	Tyr	Ser	Ala	Ala	Ala
				85					90					95	
Ala	Pro	Ser	Pro	Val	Leu	Gly	Asn	Ile	Pro	Pro	Asn	Asp	Gly	Met	Pro
			100					105					110		
Gly	Gly	Pro	Ile	Pro	Pro	Gly	Phe	Gln	Gly	Pro	Pro	Gly	Ser	Gln	
			115				120					125			

Pro	Ser	Pro	His	Ala	Gln	Pro	Pro	Pro	His	Asn	Pro	Ser	Ser	Met	Met
	130					135				140					
Gly	Pro	His	Ser	Gln	Pro	Pro	Gly	Gly	Val	Pro	Gly	Thr	Gln	Pro	Leu
145					150					155					160
Leu	Pro	Asn	Ser	Met	Asp	Pro	Thr	Arg	Gln	Gln	Gly	His	Pro	Asn	Met
			165						170					175	
Gly	Gly	Ser	Met	Gln	Arg	Met	Asn	Pro	Pro	Arg	Gly	Met	Gly	Pro	Met
			180					185					190		
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	195						200				205				
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	210					215					220				
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225					230					235					240
Ser	Ser	Pro	Gly	Thr	Tyr	Val	Gly	Pro	Pro	Gly	Gly	Gly	Gly	Pro	Pro
				245					250					255	
Gly	Thr	Pro	Ile	Met	Pro	Ser	Pro	Ala	Asp	Ser	Thr	Asn	Ser	Ser	Asp
			260					265					270		
Asn	Ile	Tyr	Thr	Met	Ile	Asn	Pro	Val	Pro	Pro	Gly	Gly	Ser	Arg	Ser
	275						280					285			
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	290					295					300				
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305					310					315					320
Asp	Gly	Leu	Pro	Lys	Asn	Ser	Pro	Asn	Asn	Ile	Ser	Gly	Ile	Ser	Asn
				325					330					335	
Pro	Pro	Gly	Thr	Pro	Arg	Asp	Asp	Gly	Glu	Leu	Gly	Gly	Asn	Phe	Leu
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	355						360					365			

<210> 447
 <211> 448
 <212> DNA
 <213> Homo sapiens

<400> 447						
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gttcccccg	agaggcctga	gaagctcccg	gccgcggggc	tcgtgcccgc	ccagcccgcg	120
gacaggccccg	ggcgcgccctg	gcctgccttt	gtataggccc	gtctgaacgt	gggagcgcag	180
cccgcctgac	ggctgagccc	gaggccccgca	accctgcggc	gtctaccctc	ctccggcgcg	240
gcccctcatc	cggcgagca	cggcggcggg	gtgggcatg	gattaagaag	gaggcggcgt	300
gggaggagga	agatggcggc	cggcaagagc	ggcggtagcg	caggggagat	tacttttctg	360
gaagctttgg	ctagatcaga	gtctaagaga	gatggagccg	cagaaccagc	acagtggtta	420
gatgataagc	ggccgctcga	ctagttct				448

<210> 448
 <211> 614
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(614)
 <223> n = g, a, c or t

<400> 448						
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cgtcgccggg	cgcggtcccc	cggagaggcc	tgagaagctc	gggccgcggg	cctcgctgcc	120
cgccagccccg	cggacaggcc	cgggcgcgcc	tggcctgcct	ttgtataggc	ccgtctgaac	180
gtgggagcgc	agcccgcctg	acggctgagc	ccgaggccccg	caaccctgcg	gcgtctaccc	240

tcctccggcg	cggccctca	tcccggcgag	cacggcgggc	gtgtgggcca	tggattaaga	300
aggaggcggc	gtgggaggag	gaagatggcg	gccggcaaga	gcggcggtag	cgcaggggag	360
attacttttc	tggaagcttt	ggctagatca	gagtctaaga	gagatggagc	cgcanaacca	420
gcacagtggg	tagatagata	aagcggccgc	tcgactagtc	tgaggctctga	tactcactga	480
ctgtcgtta	ggcgaattcc	agcacactgg	cggccggttac	tagtggatcc	gagctcggta	540
ccaagcttgg	cgtaatcatg	gtcatagctg	tttctgtgtg	tgaaattggt	atccgctcac	600
aattccacac	aaca					614

<210> 449
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 449						
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gacctcagac	tagtcgagcg	gccgctttat	ctatctaacc	actgtgctgg	ttctgcggct	120
ccatctctct	tagactctga	tctagccaaa	gcttcagaa	aagtaatctc	ccctgcgcta	180
ccgccgctct	tgccggccgc	catcttctct	ctcccacgcc	gcctccttct	taatccatgg	240
cccacaccgc	cgcctgtctc	gccgggatga	ggggccgcgc	cggaggaggg	tagacgccgc	300
agggttgcgg	gcctcgggct	cagccgtcag	gcgggctgcg	ctcccacggt	cagacggggc	360
tatacaaagg	caggccaggc	gcgcccgggc	ctgtccgcgg	gctggcgggc	agcgaggccc	420
gcggcccag	cttctcaggc	ctctccgggg	gaacgcgacc	ggcgacgacg	acgacggcgc	480
ttcccgggcc	cggttcctct	cggcccacga	ctccccatcc	accgccc		527

<210> 450
 <211> 628
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(628)
 <223> n = g, a, c or t

<400> 450						
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cgccagcccg	cggacaggcc	cgggcgcgcc	tggcctgcct	ttgtataggc	ccgtctgaac	180
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ttccacacaa	catacgagcc	ggaagcat				628

<210> 451
 <211> 529
 <212> DNA
 <213> Homo sapiens

<400> 451						
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ctccatctct	cttagactct	gatctagcca	aagcttccag	aaaagtaatc	tcctctgcgc	180
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ggcccacacc	gccgccgtgc	tcgccgggat	gaggggccgc	gccggaggag	ggtagacgcc	300
gcagggttgc	gggcctcggg	ctcagccgtc	aggcgggctg	cgctcccacg	ttcagacggg	360
cctatacaaa	ggcaggccag	gcgcgccggg	gcctgtccgc	gggctggcgg	gcagcgaggc	420

ccgcgccccg	agcttctcag	gcctctccgg	gggaacgcga	ccggcgacga	cgacgacggc	480
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<210> 452
 <211> 575
 <212> DNA
 <213> Homo sapiens

<400> 452						
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cgccagcccc	cggacaggcc	cgggcgcgcc	tggcctgcct	ttgtataggc	ccgtctgaac	180
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gcacagtggg	tagatagata	aagcggccgc	tcgactagtc	tgaggctctga	tactcactga	480
ctgtcgtaag	ggcgaattcc	agcacactgg	cggccgttac	tagtggatcc	gagctcggta	540
ccaagcttgg	cgtaatcatg	gtcatagctg	tttcc			575

<210> 453
 <211> 533
 <212> DNA
 <213> Homo sapiens

<400> 453						
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cgcgcgaggg	ttgcgggcct	cgggctcagc	cgtcaggcgg	gctgcgctcc	cacgttcaga	360
cgggcctata	caaaggcagg	ccaggcgcgc	cggggcctgt	ccgcgggctg	gcgggcagcg	420
aggcccgcgg	cccagacttc	tcaggcctct	ccgggggaac	gcgaccggcg	acgacgacga	480
cggcgcttcc	cgggcccggg	tcctctcggc	ccacgactcc	ccatccaccg	ccc	533

<210> 454
 <211> 594
 <212> DNA
 <213> Homo sapiens

<400> 454						
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<210> 455
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 455						
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cgcgggccga	gcttctcagg	cctctccggg	ggaacgcgac	cggcgacgac	gacgacggcg	480
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<210> 456

<211> 4210

<212> DNA

<213> Homo sapiens

<400> 456

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 <211> 1112
 <212> PRT
 <213> Homo sapiens

<400> 457

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Glu	Ala	Leu	Ala	Arg	Ser	Glu	Ser	Lys	Arg	Asp	Gly	Gly	Phe	Lys	Asn
			20					25					30		
Asn	Trp	Ser	Phe	Asp	His	Glu	Glu	Glu	Ser	Glu	Gly	Asp	Thr	Asp	Lys
		35					40					45			
Asp	Gly	Thr	Asn	Leu	Leu	Ser	Val	Asp	Glu	Asp	Glu	Asp	Ser	Glu	Thr
	50					55				60					
Ser	Lys	Gly	Lys	Lys	Leu	Asn	Arg	Arg	Ser	Glu	Ile	Val	Ala	Asn	Ser
65					70				75					80	
Ser	Gly	Glu	Phe	Ile	Leu	Lys	Thr	Tyr	Val	Arg	Arg	Asn	Lys	Ser	Glu
			85					90					95		
Ser	Phe	Lys	Thr	Leu	Lys	Gly	Asn	Pro	Ile	Gly	Leu	Asn	Met	Leu	Ser
			100					105					110		
Asn	Asn	Lys	Lys	Leu	Ser	Glu	Asn	Met	Gln	Asn	Thr	Ser	Leu	Cys	Ser
			115					120				125			
Gly	Thr	Val	Val	His	Gly	Arg	Arg	Phe	His	His	Ala	His	Ala	Gln	Ile
						135					140				
Pro	Val	Val	Lys	Thr	Ala	Ala	Gln	Ser	Ser	Leu	Asp	Arg	Lys	Glu	Arg
145					150					155				160	
Lys	Glu	Tyr	Pro	Pro	His	Val	Gln	Lys	Val	Glu	Ile	Asn	Pro	Val	Arg
				165				170						175	
Leu	Ser	Arg	Leu	Gln	Gly	Val	Glu	Arg	Ile	Met	Lys	Lys	Thr	Glu	Glu
			180					185					190		
Ser	Glu	Ser	Gln	Val	Glu	Pro	Glu	Ile	Lys	Arg	Lys	Val	Gln	Gln	Lys
			195					200					205		
Arg	His	Cys	Ser	Thr	Tyr	Gln	Pro	Thr	Pro	Pro	Leu	Ser	Pro	Ala	Ser
	210					215					220				
Lys	Lys	Cys	Leu	Thr	His	Leu	Glu	Asp	Leu	Gln	Arg	Asn	Cys	Arg	Gln
225					230					235				240	

Ala	Ile	Thr	Leu	Asn	Glu	Ser	Thr	Gly	Pro	Leu	Leu	Arg	Thr	Ser	Ile	
				245					250					255		
His	Gln	Asn	Ser	Gly	Gly	Gln	Lys	Ser	Gln	Asn	Thr	Gly	Leu	Thr	Thr	
			260					265					270			
Lys	Lys	Phe	Tyr	Gly	Asn	Asn	Val	Glu	Lys	Val	Pro	Ile	Asp	Ile	Ile	
		275					280					285				
Val	Asn	Cys	Asp	Asp	Ser	Lys	His	Thr	Tyr	Leu	Gln	Thr	Asn	Gly	Lys	
	290					295					300					
Val	Ile	Leu	Pro	Gly	Ala	Lys	Ile	Pro	Lys	Ile	Thr	Asn	Leu	Lys	Glu	
305					310					315					320	
Arg	Lys	Thr	Ser	Leu	Ser	Asp	Leu	Asn	Asp	Pro	Ile	Ile	Leu	Ser	Ser	
				325					330					335		
Asp	Asp	Asp	Asp	Asp	Asn	Asp	Arg	Thr	Asn	Arg	Arg	Glu	Ser	Ile	Ser	
			340					345					350			
Pro	Gln	Pro	Ala	Asp	Ser	Ala	Cys	Ser	Ser	Pro	Ala	Pro	Ser	Thr	Gly	
		355				360						365				
Lys	Val	Glu	Ala	Ala	Leu	Asn	Glu	Asn	Thr	Cys	Arg	Ala	Glu	Arg	Glu	
	370					375					380					
Leu	Arg	Ser	Ile	Pro	Glu	Asp	Ser	Glu	Leu	Asn	Thr	Val	Thr	Leu	Pro	
385					390					395					400	
Arg	Lys	Ala	Arg	Met	Lys	Asp	Gln	Phe	Gly	Asn	Ser	Ile	Ile	Asn	Thr	
				405				410						415		
Pro	Leu	Lys	Arg	Arg	Lys	Val	Phe	Ser	Gln	Glu	Pro	Pro	Asp	Ala	Leu	
			420					425					430			
Ala	Leu	Ser	Cys	Gln	Ser	Ser	Phe	Asp	Ser	Val	Ile	Leu	Asn	Cys	Arg	
		435					440					445				
Ser	Ile	Arg	Val	Gly	Thr	Leu	Phe	Arg	Leu	Leu	Ile	Glu	Pro	Val	Ile	
	450					455					460					
Phe	Cys	Leu	Asp	Phe	Ile	Lys	Ile	Gln	Leu	Asp	Glu	Pro	Asp	His	Asp	
465					470					475					480	
Pro	Val	Glu	Ile	Ile	Leu	Asn	Thr	Ser	Asp	Leu	Thr	Lys	Cys	Glu	Trp	
				485					490					495		
Cys	Asn	Val	Arg	Lys	Leu	Pro	Val	Val	Phe	Leu	Gln	Ala	Ile	Pro	Ala	
		500						505					510			
Val	Tyr	Gln	Lys	Leu	Ser	Ile	Gln	Leu	Gln	Met	Asn	Lys	Glu	Asp	Lys	
		515					520					525				
Val	Trp	Asn	Asp	Cys	Lys	Gly	Val	Asn	Lys	Leu	Thr	Asn	Leu	Glu	Glu	
	530					535					540					
Gln	Tyr	Ile	Ile	Leu	Ile	Phe	Gln	Asn	Gly	Leu	Asp	Pro	Pro	Ala	Asn	
545					550					555					560	
Met	Val	Phe	Glu	Ser	Ile	Ile	Asn	Glu	Ile	Gly	Ile	Lys	Asn	Asn	Ile	
				565					570					575		
Ser	Asn	Phe	Phe	Ala	Lys	Ile	Pro	Phe	Glu	Glu	Ala	Asn	Gly	Arg	Leu	
			580					585					590			
Val	Ala	Cys	Thr	Arg	Thr	Tyr	Glu	Glu	Ser	Ile	Lys	Gly	Ser	Cys	Gly	
		595				600						605				
Gln	Lys	Glu	Asn	Lys	Ile	Lys	Thr	Val	Ser	Phe	Glu	Ser	Lys	Ile	Gln	
	610					615					620					
Leu	Arg	Ser	Lys	Gln	Glu	Phe	Gln	Phe	Phe	Asp	Glu	Glu	Glu	Glu	Thr	
625					630					635					640	
Gly	Glu	Asn	His	Thr	Ile	Phe	Ile	Gly	Pro	Val	Glu	Lys	Leu	Ile	Val	
				645					650					655		
Tyr	Pro	Pro	Pro	Pro	Ala	Lys	Gly	Gly	Ile	Ser	Val	Thr	Asn	Glu	Asp	
		660						665					670			
Leu	His	Cys	Leu	Asn	Glu	Gly	Glu	Phe	Leu	Asn	Asp	Val	Ile	Ile	Asp	
		675					680					685				
Phe	Tyr	Leu	Lys	Tyr	Leu	Val	Leu	Glu	Lys	Leu	Lys	Lys	Glu	Asp	Ala	
	690					695					700					
Asp	Arg	Ile	His	Ile	Phe	Ser	Ser	Phe	Phe	Tyr	Lys	Arg	Leu	Asn	Gln	
705					710					715					720	

Arg	Glu	Arg	Arg	Asn	His	Glu	Thr	Thr	Asn	Leu	Ser	Ile	Gln	Gln	Lys	
				725					730					735		
Arg	His	Gly	Arg	Val	Lys	Thr	Trp	Thr	Arg	His	Val	Asp	Ile	Phe	Glu	
			740					745					750			
Lys	Asp	Phe	Ile	Phe	Val	Pro	Leu	Asn	Glu	Ala	Ala	His	Trp	Phe	Leu	
		755					760					765				
Ala	Val	Val	Cys	Phe	Pro	Gly	Leu	Glu	Lys	Pro	Lys	Tyr	Glu	Pro	Asn	
	770					775					780					
Pro	His	Tyr	His	Glu	Asn	Ala	Val	Ile	Gln	Lys	Cys	Ser	Thr	Val	Glu	
785					790					795					800	
Asp	Ser	Cys	Ile	Ser	Ser	Ser	Ala	Ser	Glu	Met	Glu	Ser	Cys	Ser	Gln	
				805					810						815	
Asn	Ser	Ser	Ala	Lys	Pro	Val	Ile	Lys	Lys	Met	Leu	Asn	Lys	Lys	His	
			820					825					830			
Cys	Ile	Ala	Val	Ile	Asp	Ser	Asn	Pro	Gly	Gln	Glu	Glu	Ser	Asp	Pro	
	835						840					845				
Arg	Tyr	Lys	Arg	Asn	Ile	Cys	Ser	Val	Lys	Tyr	Ser	Val	Lys	Lys	Ile	
	850				855						860					
Asn	His	Thr	Ala	Ser	Glu	Asn	Glu	Glu	Phe	Asn	Lys	Gly	Glu	Ser	Thr	
865					870					875					880	
Ser	Gln	Lys	Val	Ala	Asp	Arg	Thr	Lys	Ser	Glu	Asn	Gly	Leu	Gln	Asn	
				885					890						895	
Glu	Ser	Leu	Ser	Ser	Thr	His	His	Thr	Asp	Gly	Leu	Ser	Lys	Ile	Arg	
		900						905					910			
Leu	Asn	Tyr	Ser	Asp	Glu	Ser	Pro	Glu	Ala	Gly	Lys	Met	Leu	Glu	Asp	
	915						920					925				
Glu	Leu	Val	Asp	Phe	Ser	Glu	Asp	Gln	Asp	Asn	Gln	Asp	Asp	Ser	Ser	
	930					935					940					
Asp	Asp	Gly	Phe	Leu	Ala	Asp	Asp	Asn	Cys	Ser	Ser	Glu	Ile	Gly	Gln	
945					950					955					960	
Trp	His	Leu	Lys	Pro	Thr	Ile	Cys	Lys	Gln	Pro	Cys	Ile	Leu	Leu	Met	
				965					970						975	
Asp	Ser	Leu	Arg	Gly	Pro	Ser	Arg	Ser	Asn	Val	Val	Lys	Ile	Leu	Arg	
		980						985					990			
Glu	Tyr	Leu	Glu	Val	Glu	Trp	Glu	Val	Lys	Lys	Gly	Ser	Lys	Arg	Ser	
	995					1000						1005				
Phe	Ser	Lys	Asp	Val	Met	Lys	Gly	Ser	Asn	Pro	Lys	Val	Pro	Gln	Gln	
	1010					1015					1020					
Asn	Asn	Phe	Ser	Asp	Cys	Gly	Val	Tyr	Val	Leu	Gln	Tyr	Val	Glu	Ser	
1025					1030					1035					1040	
Phe	Phe	Glu	Asn	Pro	Ile	Leu	Ser	Phe	Glu	Leu	Pro	Met	Asn	Leu	Ala	
				1045					1050					1055		
Asn	Trp	Phe	Pro	Pro	Pro	Arg	Met	Arg	Thr	Lys	Arg	Glu	Glu	Ile	Arg	
		1060						1065					1070			
Asn	Ile	Ile	Leu	Lys	Leu	Gln	Glu	Asp	Gln	Ser	Lys	Glu	Lys	Arg	Lys	
	1075					1080						1085				
His	Lys	Asp	Thr	Tyr	Ser	Thr	Glu	Ala	Pro	Leu	Gly	Glu	Gly	Thr	Glu	
	1090					1095					1100					
Gln	Cys	Val	Asn	Ser	Ile	Ser	Asp									
1105					1110											

<210> 458

<211> 756

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(756)

<223> n = g, a, c or t

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atgcctcatt caacctgaat ggataaccaa aagtagctgt aacagtttta ttctcagtaa      180
ctgcaggagg acaattcact tgaatttctg tttggccctt aaaacctcca caggtggcaa      240
aagcaaagat agaagcaatc cactcgagga ccttgatgaa gccgagtggc tccttgagcg      300
ggttgaggtt gatctggaag ccgccgcagg acccagcgca gtggttagat agataaagcg      360
accgctcgac tagtctgagg tctgatactc actgactgtc gtaagggcga attcgtttaa      420
acctgcagga ctagtccctt tagtgagggt taattctgag cttggcgtaa tcatgggcat      480
agctgtttcc tgtgtgaaat tgttatccgc tcacaattcc acacaacata cgagccggaa      540
gcataaagtg taaagcctgg ggtgcctaata gagtgagcta actcacatta atttgcgttg      600
cgctcactgg ccgctttcca gtcgggaaaa ccttgctggt gccagtgcat taatgaatcg      660
gccaacgccg cggggnagag gncggggtag cgtnaatagg gggcgggccc ttaccgcggtt      720
tcctcccgcg canttgaatc cgcttgcccc cgggagc

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<210> 459

<211> 700

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(700)

<223> n = g, a, c or t

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tgaggacgta atctttccaa ttacatcac atatgtttac acctggaggt ggctgaaatg      120
atgcctcatt caacctgaat ggataaccaa aagtagctgt aacagtttta ttctcagtaa      180
ctgcaggagg acaattcact tgaatttctg tttggccctt aaaacctcca caggtggcaa      240
aagcaaagat agaagcaatc cactcgagga ccttgatgaa gccgagtggc tccttgagcg      300
ggttgaggtt gatctggaag ccgccgcagg acccagcgca gtggttagat agataaagcg      360
accgctcgac tagtctgagg tctgatactc actgactgtc gtaagggcga attcgtttaa      420
acctgcagga ctagtccctt tantgagggt taattctgag cttggcgtaa tcatgggcat      480
agctgtttcc tgtgtgaaat tgttatccgc tcacaattcc acacaacata cgagccggaa      540
gcataaagtg taaagcctgg ggtgccttaa tgagttgagc taactcacat ttaatttgcg      600
tttgcgtca cttggggccgc tttccagggt cggggaaaaa ctgtcgtgcc cagttgctta      660
atgaatcggg caacgcgcgg gggagaggcg gtgggtatng

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<210> 460

<211> 445

<212> DNA

<213> Homo sapiens

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<400> 460
acaggaacac aaagactgca aaggtaacat agaattgtgc agaagaagag taatcgcccta      60
tgaggacgta atctttccaa ttacatcac atatgtttac acctggaggt ggctgaaatg      120
atgcctcatt caacctgaat ggataaccaa aagtagctgt aacagtttta ttctcagtaa      180
ctgcaggagg acaattcact tgaatttctg tttggccctt aaaacctcca caggtggcaa      240
aagcaaagat agaagcaatc cactcgagga ccttgatgaa gccgagtggc tccttgagcg      300
ggttgaggtt gatctggaag ccgccgcagg acccagcaca gtggttagat agataaagcg      360
ccgctcgac tagtctgagg tctgatactc actgactgtc gtaagggcga attcgcgggc      420
gctaaattca attcgcccta tagtg

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<210> 461

<211> 710

<212> DNA

<213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(710)
 <223> n = g, a, c or t

<400> 461

acaggaacac	aaagactgca	aaggtaacat	agaattgtgc	agaagaagag	taatcgcccta	60
tgaggacgta	atctttccaa	tttacatcac	atatgtttac	acctggaggt	ggctgaaatg	120
atgcctcatt	caacctgaat	ggataaccaa	aagtagctgt	aacagtttta	ttctcagtaa	180
ctgcaggagg	acaattcact	tgaattttctg	tttggccctt	aaaacctcca	caggtggcaa	240
aagcaaagat	agaagcaatc	cactcgagga	ccttgatgaa	gccgagtggc	tccttgagcg	300
ggttgagggt	gatctggaag	ccgccgcagg	accagcacca	gtgggttagat	agataaagcg	360
gccgctcgac	tagtctgagg	tctgatactc	actgactgtc	gtaagggcga	attcgcgccc	420
gctaaattca	attcgcccta	tagtgagtcg	tattacaatt	cactggccgt	cgttttacaa	480
cgctgtgact	gggaaaaccc	tggcgttacc	caacttaatc	gccttgccgc	acatccccct	540
ttgccacgct	ggcgtaatag	cgaagaggcc	cgaccgatcg	cccttcccaa	cagttgcgca	600
gcctatacgt	acggcagttt	aaggttttac	nacctattaa	aagagagagc	ccgggtatcgt	660
ctgttggtgga	tgtncagagt	gatattttatt	tggaaacccc	gggaaagaat		710

<210> 462
 <211> 2130
 <212> DNA
 <213> Homo sapiens

<400> 462

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cagcggatca	gtcgactcgg	ccagaggatg	tccggcttcc	agatcaacct	caaccgcctc	120
aaggagccac	tcggcttcat	caaggctctc	gagtggattg	cttctatctt	tgcttttgcc	180
acctgtggag	gttttaaggg	ccaaacagaa	attcaagtga	attgtcctcc	tgcagttact	240
gagaataaaa	ctgttacagc	tacttttggt	tatccattca	ggttgaatga	ggcatcattt	300
cagccacctc	caggtgtaaa	catatgtgat	gtaaattgga	aagattacgt	cctcataggc	360
gattactctt	cttctgcaca	attctatggt	acctttgcag	tctttgtggt	cctgtactgc	420
attgctgccc	ttctgcttta	tgttggtctac	acgagtctgt	atctggatag	tcgtaaacct	480
cctatgatag	actttgttgt	tacacttggt	gccacttttt	tgtggttggt	gagcacttca	540
gcctgggcta	aagctctgac	agatattaaa	atagctactg	gtcacaatat	tattgatgaa	600
cttccgcctt	gtaagaagaa	agcagtactg	tgttactttg	gctctgtgac	cagtatggga	660
tccttaaagt	tatctgtgat	atttggtctt	ctaaatatga	tactctgggg	aggaaatgct	720
tggtttgtgt	acaaggagac	cagcctacac	agtcacatca	atacatctgc	ccctcatagc	780
caaggaggta	ttccacctcc	taccggaata	taattaaagg	gagaaataca	ctgtatgaag	840
tatatgttga	tactatgaca	tgttgccaac	accttgagaa	gcattatattg	tttctaataa	900
aagtaatggc	tttgtcaata	tattggtggg	tttaaaactt	tgctgctttt	ttacataaag	960
cctgtgcctt	tcctagaaaag	ttaagatgta	aatgtattct	cacatgtaaa	tttgaaagtt	1020
caggggctta	ttatgaaaatg	gattacacat	tttaaatgaa	cccataattt	ttttcactaa	1080
agctgtttgc	cctccaaaagt	gtttacacct	aagcctaaca	tgtatcgctc	attcagaaaa	1140
ctgttatatt	gtcataccat	agtaggaaga	aaaaccttta	tttggaatat	acactactgt	1200
aagtttgtac	agatcatata	cctaccacct	gtctttgctt	aaagagcctt	gattacataa	1260
atatgtagga	aaaaacatat	tgagttcaaa	atttatatct	aacattgttt	atgttatgat	1320
tttttttaat	tgcaaaagact	aggtgtatat	ttttttctgt	ttttctaaat	gacccgtggg	1380
acttaatagg	tgtactaaaa	ttgtgttggg	agcagggatt	tggaaatttc	tgagagatgt	1440
gtagttaatt	agtaattctg	tttcatgaga	tatgatctgt	tatgctagtg	gtttaatagg	1500
cttgctatgt	aagtagaacg	tggctcaact	agatatctta	tatgtatggg	cattacctct	1560
tagtgatatt	tgtttcctgt	cctttgttgc	tcatgctggt	taagtgcagg	ctgagaccca	1620
gcctctttgt	aagtacagta	aaataatcca	ccgtttttta	cagaccctag	tcaaagggtt	1680
aaaaaaatta	agattgcttt	ccatgtttga	aatttaccat	tgagagtcaa	tgaagttgct	1740
atthttgagtt	tagcattgat	attgtgaaaa	taagtgcaat	ttggatttca	tgthttcttaa	1800
tattcattct	tgthttcacia	atgaatgatt	aaggaattat	gcatcataaa	ggaacctaaag	1860
tgaggatat	gatgagtgt	ttgtctttgc	acacacatat	aggtatatct	tgaatacaag	1920
cttattcatt	ttgcttccta	atctttttgt	tgtacaggga	ttcagggtttc	ttattcttac	1980
aacatgattg	tttatatgtg	aagcacatct	tgctgttgcc	ttatttttga	tgctttttatt	2040
catgacaaga	attgtcaata	taagaatgta	tatctttgcc	gcaaccaatt	taataaagga	2100
gttgaaagaa	aaaaaaaaaa	aaaaaaaaaa				2130

<210> 463
 <211> 259
 <212> PRT
 <213> Homo sapiens

<400> 463
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 Gln Arg Met Ser Gly Phe Gln Ile Asn Leu Asn Pro Leu Lys Glu Pro
 20 25 30
 Leu Gly Phe Ile Lys Val Leu Glu Trp Ile Ala Ser Ile Phe Ala Phe
 35 40 45
 Ala Thr Cys Gly Gly Phe Lys Gly Gln Thr Glu Ile Gln Val Asn Cys
 50 55 60
 Pro Pro Ala Val Thr Glu Asn Lys Thr Val Thr Ala Thr Phe Gly Tyr
 65 70 75 80
 Pro Phe Arg Leu Asn Glu Ala Ser Phe Gln Pro Pro Pro Gly Val Asn
 85 90 95
 Ile Cys Asp Val Asn Trp Lys Asp Tyr Val Leu Ile Gly Asp Tyr Ser
 100 105 110
 Ser Ser Ala Gln Phe Tyr Val Thr Phe Ala Val Phe Val Phe Leu Tyr
 115 120 125
 Cys Ile Ala Ala Leu Leu Leu Tyr Val Gly Tyr Thr Ser Leu Tyr Leu
 130 135 140
 Asp Ser Arg Lys Leu Pro Met Ile Asp Phe Val Val Thr Leu Val Ala
 145 150 155 160
 Thr Phe Leu Trp Leu Val Ser Thr Ser Ala Trp Ala Lys Ala Leu Thr
 165 170 175
 Asp Ile Lys Ile Ala Thr Gly His Asn Ile Ile Asp Glu Leu Pro Pro
 180 185 190
 Cys Lys Lys Lys Ala Val Leu Cys Tyr Phe Gly Ser Val Thr Ser Met
 195 200 205
 Gly Ser Leu Asn Val Ser Val Ile Phe Gly Phe Leu Asn Met Ile Leu
 210 215 220
 Trp Gly Gly Asn Ala Trp Phe Val Tyr Lys Glu Thr Ser Leu His Ser
 225 230 235 240
 Pro Ser Asn Thr Ser Ala Pro His Ser Gln Gly Gly Ile Pro Pro Pro
 245 250 255
 Thr Gly Ile

<210> 464
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 464
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 aggaggacac tggtagagct ggagcagcct ttgttcctga ggatgtcttc tgggtgtggtt 120
 ccaaagacaa acctcacatt ctgcagcacc ccctggaaaa tgtca 165

<210> 465
 <211> 166
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(166)
 <223> n = g, a, c or t

<400> 465
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 acatcctcag gaacaaaggc tgcctcagct ctaccagtgt nctcctcacc cttgacaaca 120
 acgtggtgaa tggttccagc cctggcatcc gnactaacta cattgg 166

<210> 466
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 466
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 catcctcagg aacaaaggct gctccagctc taccagtgtc ctcctcacc cttgacaaca 120
 cgtggtgaat ggttccagcc ctgccatccg cactaactac attgg 165

<210> 467
 <211> 160
 <212> DNA
 <213> Homo sapiens

<400> 467
 tgacattttc caggggtgct gcagaatgtg aggtttgtct ttggaaccac accagaagac 60
 atcctcagga acaaaggctg ctccagctct accagtgtct cctcaccttg acaacaacgt 120
 ggtgaatggt tccagcctgg catccgacta actacattgg 160

<210> 468
 <211> 164
 <212> DNA
 <213> Homo sapiens

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 Lys Gln Val Thr Gln Ser Tyr Trp Asp Thr Asn Pro Thr Arg Ala Gln
 1045 1050 1055
 Gly Tyr Ser Gly Leu Ser Val Lys Val Val Asn Ser Thr Thr Gly Pro
 1060 1065 1070
 Gly Glu His Leu Arg Asn Ala Leu Trp His Thr Gly Asn Thr Pro Gly
 1075 1080 1085
 Gln Val Arg Thr Leu Trp His Asp Pro Arg His Ile Gly Trp Lys Asp
 1090 1095 1100
 Phe Thr Ala Tyr Arg Trp Arg Leu Ser His Arg Pro Lys Thr Gly Phe
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 Ile Arg Val Val Met Tyr Glu Gly Lys Lys Ile Met Ala Asp Ser Gly
 1125 1130 1135
 Pro Ile Tyr Asp Lys Thr Tyr Ala Gly Gly Arg Leu Gly Leu Phe Val
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 Asp Pro
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<211> 87

<212> DNA

<213> Homo sapiens

<400> 483

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87

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 <212> DNA
 <213> Homo sapiens

<400> 484

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gaagattgag	aaacaatatg	atgcagatct	ggagcagatc	ctgatccagt	ggatcaccac	180
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caaggatggc	acggtgctat	gtgagctcat	taatgcactg	taccccgagg	ggcaggcccc	300
agtaaagaag	atccaggcct	ccaccatggc	cttcaagcag	atggagcaga	tctctcagtt	360
cctgcaagca	gctgagcgct	atggcattaa	caccactgac	atcttccaaa	ctgtggacct	420
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 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 485

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			20					25					30		
Trp	Ile	Thr	Thr	Gln	Cys	Arg	Lys	Asp	Val	Gly	Arg	Pro	Gln	Pro	Gly
			35				40					45			
Arg	Glu	Asn	Phe	Gln	Asn	Trp	Leu	Lys	Asp	Gly	Thr	Val	Leu	Cys	Glu
			50			55				60					
Leu	Ile	Asn	Ala	Leu	Tyr	Pro	Glu	Gly	Gln	Ala	Pro	Val	Lys	Lys	Ile
65					70					75				80	
Gln	Ala	Ser	Thr	Met	Ala	Phe	Lys	Gln	Met	Glu	Gln	Ile	Ser	Gln	Phe
			85					90						95	
Leu	Gln	Ala	Ala	Glu	Arg	Tyr	Gly	Ile	Asn	Thr	Thr	Asp	Ile	Phe	Gln
			100					105					110		
Thr	Val	Asp	Leu	Trp	Glu	Gly	Lys	Asn	Met	Ala	Cys	Val	Gln	Arg	Thr
			115				120					125			
Leu	Met	Asn	Leu	Gly	Gly	Leu	Ala	Val	Ala	Arg	Asp	Asp	Gly	Leu	Phe
			130			135					140				
Ser	Gly	Asp	Pro	Asn	Trp	Phe	Pro	Lys	Lys	Ser	Lys	Glu	Asn	Pro	Arg
145					150					155				160	
Asn	Phe	Ser	Asp	Asn	Gln	Leu	Gln	Glu	Gly	Lys	Asn	Val	Ile	Gly	Leu
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180 185 190
Gly Met Pro Arg Gln Ile Leu
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<211> 284
<212> DNA
<213> Homo sapiens

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ctcctttccc aatgatattc ttgtgaaact gtttgaagat cggaacagaa attgaatagc 180
tattttccac cagatctgcc accatcttct gcatgtattt tgtgcatttt tccacctcat 240
tcttaggtcc tctgagctgg acaatgtcac ttttttgtgc tggg 284

<210> 487
<211> 283
<212> DNA
<213> Homo sapiens

<400> 487
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tccgatcttc aaacagtttc acaagaatat cattgggaaa ggaggcgcaa acattaaaaa 180
gattcgtgaa gaaagcaaca ccaaatcga ccttcagca gagaatagca attcagagac 240
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<211> 431
<212> DNA
<213> Homo sapiens

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gttccgattc ttcaaacagt ttcacaagaa tatcattggg aaaggaggcg caaacgattc 180
aagaaagatt cgtgaagaaa gcaacaccaa aatcgacctt ccagcagaga atagcaattt 240
cagagaccat tatcagtcac aggcaagcga gccaaactgc aagggttgcc ctgggtccgct 300
agaaacccag cacagggtgg tagatggata caagcggccg ctcgactagt ctgaggtctg 360
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gatccgagct c 431

<210> 489
<211> 283
<212> DNA
<213> Homo sapiens

<400> 489
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tcctttccca atgatattct tgtgaaactg tttgaagatc ggaacagaaa ttgaatagct 180
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<211> 438
<212> DNA
<213> Homo sapiens

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 <211> 283
 <212> DNA
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 <211> 284
 <212> DNA
 <213> Homo sapiens

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 tccgatcttc aaacagtttc acaagaatat cattgggaaa ggaggcgcaa acattaaaaa 180
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 <212> DNA
 <213> Homo sapiens

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<211> 1268

<212> PRT

<213> Homo sapiens

<400> 494

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5

10

15

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Glu	Glu	Ser	Asp	Pro	Pro	Thr	Tyr	Lys	Asp	Ala	Phe	Pro	Pro	Leu	Pro	35	40	45
Glu	Lys	Ala	Ala	Cys	Leu	Glu	Ser	Ala	Gln	Glu	Pro	Ala	Gly	Ala	Trp	50	55	60
Gly	Asn	Lys	Ile	Arg	Pro	Ile	Lys	Ala	Ser	Val	Ile	Thr	Gln	Val	Phe	65	70	75
His	Val	Pro	Leu	Glu	Glu	Arg	Lys	Tyr	Lys	Asp	Met	Asn	Gln	Phe	Gly	85	90	95
Glu	Gly	Glu	Gln	Ala	Lys	Ile	Cys	Leu	Glu	Ile	Met	Gln	Arg	Thr	Gly	100	105	110
Ala	His	Leu	Glu	Leu	Ser	Leu	Ala	Lys	Asp	Gln	Gly	Leu	Ser	Ile	Met	115	120	125
Val	Ser	Gly	Lys	Leu	Asp	Ala	Val	Met	Lys	Ala	Arg	Lys	Asp	Ile	Val	130	135	140
Ala	Arg	Leu	Gln	Thr	Gln	Ala	Ser	Ala	Thr	Val	Ala	Ile	Pro	Lys	Glu	145	150	155
His	His	Arg	Phe	Val	Ile	Gly	Lys	Asn	Gly	Glu	Lys	Leu	Gln	Asp	Leu	165	170	175
Glu	Leu	Lys	Thr	Ala	Thr	Lys	Ile	Gln	Ile	Pro	Arg	Pro	Asp	Asp	Pro	180	185	190
Ser	Asn	Gln	Ile	Lys	Ile	Thr	Gly	Thr	Lys	Glu	Gly	Ile	Glu	Lys	Ala	195	200	205
Arg	His	Glu	Val	Leu	Leu	Ile	Ser	Ala	Glu	Gln	Asp	Lys	Arg	Ala	Val	210	215	220
Glu	Arg	Leu	Glu	Val	Glu	Lys	Ala	Phe	His	Pro	Phe	Ile	Ala	Gly	Pro	225	230	235
Tyr	Asn	Arg	Leu	Val	Gly	Glu	Ile	Met	Gln	Glu	Thr	Gly	Thr	Arg	Ile	245	250	255
Asn	Ile	Pro	Pro	Pro	Ser	Val	Asn	Arg	Thr	Glu	Ile	Val	Phe	Thr	Gly	260	265	270
Glu	Lys	Glu	Gln	Leu	Ala	Gln	Ala	Val	Ala	Arg	Ile	Lys	Lys	Ile	Tyr	275	280	285
Glu	Glu	Lys	Lys	Lys	Lys	Thr	Thr	Thr	Ile	Ala	Val	Glu	Val	Lys	Lys	290	295	300
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Ile	Leu	Glu	Arg	Thr	Gly	Val	Ser	Val	Glu	Ile	Pro	Pro	Ser	Asp	Ser	325	330	335
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Ala	Leu	Thr	Glu	Val	Tyr	Ala	Lys	Ala	Asn	Ser	Phe	Thr	Val	Ser	Ser	355	360	365
Val	Ala	Ala	Pro	Ser	Trp	Leu	His	Arg	Phe	Ile	Ile	Gly	Lys	Lys	Gly	370	375	380
Gln	Asn	Leu	Ala	Lys	Ile	Thr	Gln	Gln	Met	Pro	Lys	Val	His	Ile	Glu	385	390	395
Phe	Thr	Glu	Gly	Glu	Asp	Lys	Ile	Thr	Leu	Glu	Gly	Pro	Thr	Glu	Asp	405	410	415
Val	Asn	Val	Ala	Gln	Glu	Gln	Ile	Glu	Gly	Met	Val	Lys	Asp	Leu	Ile	420	425	430
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His	Leu	Ile	Gly	Lys	Ser	Gly	Ala	Asn	Ile	Asn	Arg	Ile	Lys	Asp	Gln	450	455	460
Tyr	Lys	Val	Ser	Val	Arg	Ile	Pro	Pro	Asp	Ser	Glu	Lys	Ser	Asn	Leu	465	470	475
Ile	Arg	Ile	Glu	Gly	Asp	Pro	Gln	Gly	Val	Gln	Gln	Ala	Lys	Arg	Glu	485	490	495

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Leu	Val	Glu	Asn	Ser	Tyr	Ser	Ile	Ser	Val	Pro	Ile	Phe	Lys	Gln	Phe
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His	Lys	Asn	Ile	Ile	Gly	Lys	Gly	Gly	Ala	Asn	Ile	Lys	Lys	Ile	Arg
		595					600					605			
Glu	Glu	Ser	Asn	Thr	Lys	Ile	Asp	Leu	Pro	Ala	Glu	Asn	Ser	Asn	Ser
	610					615					620				
Glu	Thr	Ile	Ile	Ile	Thr	Gly	Lys	Arg	Ala	Asn	Cys	Glu	Ala	Ala	Arg
625					630					635					640
Ser	Arg	Ile	Leu	Ser	Ile	Gln	Lys	Asp	Leu	Ala	Asn	Ile	Ala	Glu	Val
				645					650					655	
Glu	Val	Ser	Ile	Pro	Ala	Lys	Leu	His	Asn	Ser	Leu	Ile	Gly	Thr	Lys
			660					665					670		
Gly	Arg	Leu	Ile	Arg	Ser	Ile	Met	Glu	Glu	Cys	Gly	Gly	Val	His	Ile
		675					680					685			
His	Phe	Pro	Val	Glu	Gly	Ser	Gly	Ser	Asp	Thr	Val	Val	Ile	Arg	Gly
	690					695					700				
Pro	Ser	Ser	Asp	Val	Glu	Lys	Ala	Lys	Lys	Gln	Leu	Leu	His	Leu	Ala
705					710					715					720
Glu	Glu	Lys	Gln	Thr	Lys	Ser	Phe	Thr	Val	Asp	Ile	Arg	Ala	Lys	Pro
				725					730					735	
Glu	Tyr	His	Lys	Phe	Leu	Ile	Gly	Lys	Gly	Gly	Gly	Lys	Ile	Arg	Lys
			740				745						750		
Val	Arg	Asp	Ser	Thr	Gly	Ala	Arg	Val	Ile	Phe	Pro	Ala	Ala	Glu	Asp
		755					760					765			
Lys	Asp	Gln	Asp	Leu	Ile	Thr	Ile	Ile	Gly	Lys	Glu	Asp	Ala	Val	Arg
	770					775					780				
Glu	Ala	Gln	Lys	Glu	Leu	Glu	Ala	Leu	Ile	Gln	Asn	Leu	Asp	Asn	Val
785					790					795					800
Val	Glu	Asp	Ser	Met	Leu	Val	Asp	Pro	Lys	His	His	Arg	His	Phe	Val
				805					810					815	
Ile	Arg	Arg	Gly	Gln	Val	Leu	Arg	Glu	Ile	Ala	Glu	Glu	Tyr	Gly	Gly
			820					825					830		
Val	Met	Val	Ser	Phe	Pro	Arg	Ser	Gly	Thr	Gln	Ser	Asp	Lys	Val	Thr
		835					840					845			
Leu	Lys	Gly	Ala	Lys	Asp	Cys	Val	Glu	Ala	Ala	Lys	Lys	Arg	Ile	Gln
	850					855					860				
Glu	Ile	Ile	Glu	Asp	Leu	Glu	Ala	Gln	Val	Thr	Leu	Glu	Cys	Ala	Ile
865					870					875					880
Pro	Gln	Lys	Phe	His	Arg	Ser	Val	Met	Gly	Pro	Lys	Gly	Ser	Arg	Ile
				885					890					895	
Gln	Gln	Ile	Thr	Arg	Asp	Phe	Ser	Val	Gln	Ile	Lys	Phe	Pro	Asp	Arg
			900					905					910		
Glu	Glu	Asn	Ala	Val	His	Ser	Thr	Glu	Pro	Val	Val	Gln	Glu	Asn	Gly
		915					920					925			
Asp	Glu	Ala	Gly	Glu	Gly	Arg	Glu	Ala	Lys	Asp	Cys	Asp	Pro	Gly	Ser
	930					935					940				
Pro	Arg	Arg	Cys	Asp	Ile	Ile	Ile	Ile	Ser	Gly	Arg	Lys	Glu	Lys	Cys
945					950					955					960
Glu	Ala	Ala	Lys	Glu	Ala	Leu	Glu	Ala	Leu	Val	Pro	Val	Thr	Ile	Glu
				965					970					975	

Val Glu Val Pro Phe Asp Leu His Arg Tyr Val Ile Gly Gln Lys Gly
 980 985 990
 Ser Gly Ile Arg Lys Met Met Asp Glu Phe Glu Val Asn Ile His Val
 995 1000 1005
 Pro Ala Pro Glu Leu Gln Ser Asp Ile Ile Ala Ile Thr Gly Leu Ala
 1010 1015 1020
 Ala Asn Leu Asp Arg Ala Lys Ala Gly Leu Leu Glu Arg Val Lys Glu
 1025 1030 1035 1040
 Leu Gln Ala Glu Gln Glu Asp Arg Ala Leu Arg Ser Phe Lys Leu Ser
 1045 1050 1055
 Val Thr Val Asp Pro Lys Tyr His Pro Lys Ile Ile Gly Arg Lys Gly
 1060 1065 1070
 Ala Val Ile Thr Gln Ile Arg Leu Glu His Asp Val Asn Ile Gln Phe
 1075 1080 1085
 Pro Asp Lys Asp Asp Gly Asn Gln Pro Gln Asp Gln Ile Thr Ile Thr
 1090 1095 1100
 Gly Tyr Glu Lys Asn Thr Glu Ala Ala Arg Asp Ala Ile Leu Arg Ile
 1105 1110 1115 1120
 Val Gly Glu Leu Glu Gln Met Val Ser Glu Asp Val Pro Leu Asp His
 1125 1130 1135
 Arg Val His Ala Arg Ile Ile Gly Ala Arg Gly Lys Ala Ile Arg Lys
 1140 1145 1150
 Ile Met Asp Glu Phe Lys Val Asp Ile Arg Phe Pro Gln Ser Gly Ala
 1155 1160 1165
 Pro Asp Pro Asn Cys Val Thr Val Thr Gly Leu Pro Glu Asn Val Glu
 1170 1175 1180
 Glu Ala Ile Asp His Ile Leu Asn Leu Glu Glu Glu Tyr Leu Ala Asp
 1185 1190 1195 1200
 Val Val Asp Ser Glu Ala Leu Gln Val Tyr Met Lys Pro Pro Ala His
 1205 1210 1215
 Glu Glu Ala Lys Ala Pro Ser Arg Gly Phe Val Val Arg Asp Ala Pro
 1220 1225 1230
 Trp Thr Ala Ser Ser Ser Glu Lys Ala Pro Asp Met Ser Ser Ser Glu
 1235 1240 1245
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 1250 1255 1260
 Gly Pro Lys Arg
 1265

<210> 495
 <211> 505
 <212> DNA
 <213> Homo sapiens

<400> 495
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 cgtgactacg tccacccgca cctacagcct gggcagcgcg ctgcgccccca gcaccagcgc 180
 agcctctacg cctcgtcccc gggcggcgctg tatgccacgc gctcctctgc cgtgcgcctg 240
 cggagcagcg tgcccggggg gcggctcctg caggactcgg tggacttctc gctggccgac 300
 gccatcaaca ccgagttcaa gaacaccgc accaacagaa ggtggagctg caggagctga 360
 atgaccgctt cgccactata tcgacaggtg cgcttcctgg agcagcagaa taagatcctg 420
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<210> 496
 <211> 1851
 <212> DNA
 <213> Homo sapiens

<400> 496

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ccatgtccac	caggtccgtg	tcctcgteet	cctaccgcag	gatgttcggc	ggccccgggca	180
ccgcgagccg	gccgagctcc	agccggagct	acgtgactac	gtccacccgc	acctacagcc	240
tgggcagcgc	gctgcgcccc	agcaccagcc	gcagcctcta	cgcctcgctc	ccggggcgccg	300
tgtatgccac	gcgctcctct	gccgtgcgcc	tgcggagcag	cgtgcccggg	gtgcggctcc	360
tgcaggactc	ggtggacttc	tcgctggccg	acgccatcaa	caccgagttc	aagaacaccc	420
gcaccaacga	gaaggtggag	ctgcaggagc	tgaatgaccg	cttcgccaac	tacatcgaca	480
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gccaaggcaa	gtcgcgccta	ggggacctct	acgaggagga	gatgcgggag	ctgcgccggc	600
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aggacatcat	gcgcctccgg	gagaaattgc	aggaggagat	gcttcagaga	gaggaagccg	720
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ggagacaggt	gcagtcacct	acctgtgaag	tggatgccct	taaaggaacc	aatgagtccc	1140
tggaacgcca	gatgcgtgaa	atggaagaga	actttgccgt	tgaagctgct	aactaccaag	1200
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acactcctac	aagatttaga	aaaaagttta	caacataatc	tagtttacag	aaaaatcttg	1740
tgctagaata	ctttttaaaa	ggtattttga	ataccattaa	aactgctttt	ttttttccag	1800
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<210> 497

<211> 466

<212> PRT

<213> Homo sapiens

<400> 497

Met	Ser	Thr	Arg	Ser	Val	Ser	Ser	Ser	Ser	Tyr	Arg	Arg	Met	Phe	Gly
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Gly	Pro	Gly	Thr	Ala	Ser	Arg	Pro	Ser	Ser	Arg	Ser	Tyr	Val	Thr	
			20					25				30			
Thr	Ser	Thr	Arg	Thr	Tyr	Ser	Leu	Gly	Ser	Ala	Leu	Arg	Pro	Ser	Thr
		35				40				45					
Ser	Arg	Ser	Leu	Tyr	Ala	Ser	Ser	Pro	Gly	Gly	Val	Tyr	Ala	Thr	Arg
	50				55					60					
Ser	Ser	Ala	Val	Arg	Leu	Arg	Ser	Ser	Val	Pro	Gly	Val	Arg	Leu	Leu
65				70					75					80	
Gln	Asp	Ser	Val	Asp	Phe	Ser	Leu	Ala	Asp	Ala	Ile	Asn	Thr	Glu	Phe
			85					90					95		
Lys	Asn	Thr	Arg	Thr	Asn	Glu	Lys	Val	Glu	Leu	Gln	Glu	Leu	Asn	Asp
		100					105				110				
Arg	Phe	Ala	Asn	Tyr	Ile	Asp	Lys	Val	Arg	Phe	Leu	Glu	Gln	Gln	Asn
	115					120				125					
Lys	Ile	Leu	Leu	Ala	Glu	Leu	Glu	Gln	Leu	Lys	Gly	Gln	Gly	Lys	Ser
	130				135				140						
Arg	Leu	Gly	Asp	Leu	Tyr	Glu	Glu	Glu	Met	Arg	Glu	Leu	Arg	Arg	Gln
145				150				155						160	
Val	Asp	Gln	Leu	Thr	Asn	Asp	Lys	Ala	Arg	Val	Glu	Val	Glu	Arg	Asp
		165					170						175		

Asn Leu Ala Glu Asp Ile Met Arg Leu Arg Glu Lys Leu Gln Glu Glu
 180 185 190
 Met Leu Gln Arg Glu Glu Ala Glu Asn Thr Leu Gln Ser Phe Arg Gln
 195 200 205
 Asp Val Asp Asn Ala Ser Leu Ala Arg Leu Asp Leu Glu Arg Lys Val
 210 215 220
 Glu Ser Leu Gln Glu Glu Ile Ala Phe Leu Lys Lys Leu His Glu Glu
 225 230 235 240
 Glu Ile Gln Glu Leu Gln Ala Gln Ile Gln Glu Gln His Val Gln Ile
 245 250 255
 Asp Val Asp Val Ser Lys Pro Asp Leu Thr Ala Ala Leu Arg Asp Val
 260 265 270
 Arg Gln Gln Tyr Glu Ser Val Ala Ala Lys Asn Leu Gln Glu Ala Glu
 275 280 285
 Glu Trp Tyr Lys Ser Lys Phe Ala Asp Leu Ser Glu Ala Ala Asn Arg
 290 295 300
 Asn Asn Asp Ala Leu Arg Gln Ala Lys Gln Glu Ser Thr Glu Tyr Arg
 305 310 315 320
 Arg Gln Val Gln Ser Leu Thr Cys Glu Val Asp Ala Leu Lys Gly Thr
 325 330 335
 Asn Glu Ser Leu Glu Arg Gln Met Arg Glu Met Glu Glu Asn Phe Ala
 340 345 350
 Val Glu Ala Ala Asn Tyr Gln Asp Thr Ile Gly Arg Leu Gln Asp Glu
 355 360 365
 Ile Gln Asn Met Lys Glu Glu Met Ala Arg His Leu Arg Glu Tyr Gln
 370 375 380
 Asp Leu Leu Asn Val Lys Met Ala Leu Asp Ile Glu Ile Ala Thr Tyr
 385 390 395 400
 Arg Lys Leu Leu Glu Gly Glu Glu Ser Arg Ile Ser Leu Pro Leu Pro
 405 410 415
 Asn Phe Ser Ser Leu Asn Leu Arg Glu Thr Asn Leu Asp Ser Leu Pro
 420 425 430
 Leu Val Asp Thr His Ser Lys Arg Thr Phe Leu Ile Lys Thr Val Glu
 435 440 445
 Thr Arg Asp Gly Gln Val Ile Asn Glu Thr Ser Gln His His Asp Asp
 450 455 460
 Leu Glu
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<210> 498

<211> 1839

<212> DNA

<213> Homo sapiens

<400> 498

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ccaccaggtc	cgtgtcctcg	tcctcctacc	gcaggatggt	cggcggcccc	ggcaccgcga	180
gccggccgag	ctccagccgg	agctacgtga	ctacgtccac	ccgcacctac	agcctgggca	240
gcgcgctgcg	ccccagcacc	agccgcagcc	tctacgcctc	gtccccgggc	ggcgtgtatg	300
ccacgcgctc	ctctgccgtg	cgctgcgga	gcagcgtgcc	cggggtgcgg	ctcctgcagg	360
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acgagaaggt	ggagctgcag	gagctgaatg	accgcttcgc	caactacatc	gacaaggtgc	480
gcttcctgga	gcagcagaat	aagatcctgc	tggccgagct	cgagcagctc	aagggccaag	540
gcaagtgcgc	cctggggggac	ctctacgagg	aggagatgcg	ggagctgcgc	cggcaggtgg	600
accagctaac	caacgacaaa	gcccgcgtcg	aggtggagcg	cgacaacctg	gccgaggaca	660
tcatgcgcct	ccggggagaaa	ttgcaggagg	agatgcttca	gagagaggaa	gccgaaaaca	720
ccctgcaatc	tttcagacag	gatgttgaca	atgcgtctct	ggcacgtctt	gaccttgaac	780
gcaaagtgga	atctttgcaa	gaagagattg	cctttttgaa	gaaactccac	gaagaggaaa	840
tccaggagct	gcaggctcag	attcaggaac	agcatgtcca	aatcgatgtg	gatgtttcca	900
agcctgacct	cacggctgcc	ctgcgtgacg	tacgtcagca	atatgaaagt	gtggctgcca	960

agaacctgca	ggaggcagaa	gaatggtaca	aatccaagtt	tgctgacctc	tctgaggctg	1020
ccaaccggaa	caatgacgcc	ctgcgccagg	caaagcagga	gtccactgag	taccggagac	1080
aggtgcagtc	cctcacctgt	gaagtggatg	cccttaaagg	aaccaatgag	tccctggaac	1140
gccagatgcg	tgaaatggaa	gagaactttg	ccgttgaagc	tgctaactac	caagacacta	1200
ttggccgcct	gcaggatgag	attcagaata	tgaaggagga	aatggctcgt	caccttcgtg	1260
aataccaaga	cctgctcaat	gttaagatgg	cccttgacat	tgagattgcc	acctacagga	1320
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acctgagggg	aactaatctg	gattcactcc	ctctggttga	taccactca	aaaaggacac	1440
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agcgcaagat	agatttggaa	taggaataag	ctctagtctt	taacaaccga	cactcctaca	1680
agatttagaa	aaaagtttac	aacataatct	agtttacaga	aaaatcttgt	gctagaatac	1740
tttttaaaag	gtattttgaa	taccattaaa	actgcttttt	tttttccagc	aagtatccaa	1800
ccaacttggt	tctgcttcaa	taaatctttg	gaaaaactc			1839

<210> 499

<211> 466

<212> PRT

<213> Homo sapiens

<400> 499

Met	Ser	Thr	Arg	Ser	Val	Ser	Ser	Ser	Ser	Tyr	Arg	Arg	Met	Phe	Gly
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Gly	Pro	Gly	Thr	Ala	Ser	Arg	Pro	Ser	Ser	Ser	Arg	Ser	Tyr	Val	Thr
			20					25					30		
Thr	Ser	Thr	Arg	Thr	Tyr	Ser	Leu	Gly	Ser	Ala	Leu	Arg	Pro	Ser	Thr
		35				40					45				
Ser	Arg	Ser	Leu	Tyr	Ala	Ser	Ser	Pro	Gly	Gly	Val	Tyr	Ala	Thr	Arg
	50				55					60					
Ser	Ser	Ala	Val	Arg	Leu	Arg	Ser	Ser	Val	Pro	Gly	Val	Arg	Leu	Leu
65				70					75					80	
Gln	Asp	Ser	Val	Asp	Phe	Ser	Leu	Ala	Asp	Ala	Ile	Asn	Thr	Glu	Phe
			85					90					95		
Lys	Asn	Thr	Arg	Thr	Asn	Glu	Lys	Val	Glu	Leu	Gln	Glu	Leu	Asn	Asp
		100					105					110			
Arg	Phe	Ala	Asn	Tyr	Ile	Asp	Lys	Val	Arg	Phe	Leu	Glu	Gln	Gln	Asn
	115					120					125				
Lys	Ile	Leu	Leu	Ala	Glu	Leu	Glu	Gln	Leu	Lys	Gly	Gln	Gly	Lys	Ser
	130				135					140					
Arg	Leu	Gly	Asp	Leu	Tyr	Glu	Glu	Glu	Met	Arg	Glu	Leu	Arg	Arg	Gln
145				150					155					160	
Val	Asp	Gln	Leu	Thr	Asn	Asp	Lys	Ala	Arg	Val	Glu	Val	Glu	Arg	Asp
		165					170						175		
Asn	Leu	Ala	Glu	Asp	Ile	Met	Arg	Leu	Arg	Glu	Lys	Leu	Gln	Glu	Glu
	180					185							190		
Met	Leu	Gln	Arg	Glu	Glu	Ala	Glu	Asn	Thr	Leu	Gln	Ser	Phe	Arg	Gln
	195					200					205				
Asp	Val	Asp	Asn	Ala	Ser	Leu	Ala	Arg	Leu	Asp	Leu	Glu	Arg	Lys	Val
	210				215					220					
Glu	Ser	Leu	Gln	Glu	Glu	Ile	Ala	Phe	Leu	Lys	Lys	Leu	His	Glu	Glu
225				230					235					240	
Glu	Ile	Gln	Glu	Leu	Gln	Ala	Gln	Ile	Gln	Glu	Gln	His	Val	Gln	Ile
		245					250						255		
Asp	Val	Asp	Val	Ser	Lys	Pro	Asp	Leu	Thr	Ala	Ala	Leu	Arg	Asp	Val
	260					265						270			
Arg	Gln	Gln	Tyr	Glu	Ser	Val	Ala	Lys	Asn	Leu	Gln	Glu	Ala	Glu	
	275					280				285					
Glu	Trp	Tyr	Lys	Ser	Lys	Phe	Ala	Asp	Leu	Ser	Glu	Ala	Ala	Asn	Arg
	290				295					300					

Asn Asn Asp Ala Leu Arg Gln Ala Lys Gln Glu Ser Thr Glu Tyr Arg
 305 310 315 320
 Arg Gln Val Gln Ser Leu Thr Cys Glu Val Asp Ala Leu Lys Gly Thr
 325 330 335
 Asn Glu Ser Leu Glu Arg Gln Met Arg Glu Met Glu Glu Asn Phe Ala
 340 345 350
 Val Glu Ala Ala Asn Tyr Gln Asp Thr Ile Gly Arg Leu Gln Asp Glu
 355 360 365
 Ile Gln Asn Met Lys Glu Glu Met Ala Arg His Leu Arg Glu Tyr Gln
 370 375 380
 Asp Leu Leu Asn Val Lys Met Ala Leu Asp Ile Glu Ile Ala Thr Tyr
 385 390 395 400
 Arg Lys Leu Leu Glu Gly Glu Glu Ser Arg Ile Ser Leu Pro Leu Pro
 405 410 415
 Asn Phe Ser Ser Leu Asn Leu Arg Glu Thr Asn Leu Asp Ser Leu Pro
 420 425 430
 Leu Val Asp Thr His Ser Lys Arg Thr Leu Leu Ile Lys Thr Val Glu
 435 440 445
 Thr Arg Asp Gly Gln Val Ile Asn Glu Thr Ser Gln His His Asp Asp
 450 455 460
 Leu Glu
 465

<210> 500
 <211> 619
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(619)
 <223> n = g, a, c or t

<400> 500
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 gaaattcggg acgttccttg ggaaattacg ttgccccggg gtgagtcggg ctccatggca 180
 acttgagagc cagccaggac tggggctggg ngagccgtgc tggacaactt cgctagggag 240
 gagacgacgt gaaccacccg ggccacattc ctcttttccc gcagagaaacn cttgaacgct 300
 cccagtagtc ttgccagaag cggaacgca ccacggccag cccatatttc acgctcggag 360
 ccnccacccc accttcgaaa ggcccttcca ctggtaacat tgacttctcc aacccccctac 420
 ggaaggctac aacaaggggc cgattttccg ctttctccca acagcctcgc cttgttggtc 480
 cnatttttcc ccttgcttcc ccagaccgga aatttcccn cgcgaaaaat tacgagaggg 540
 gtcttggcct atttgaaagg cnngggcagg naccccaatt tttcccagcg cccctgtnat 600
 tttgagnaac ccacggaaa 619

<210> 501
 <211> 508
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(508)
 <223> n = g, a, c or t

<400> 501
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 gaacgttccc tggaaattac gttgccccgg tgtgagtggg ctccatggca acttgagacc 180
 agccaggatg ggggtggggag cggtggcact cgtggggagg agaggacccc cgccacatcc 240

ccttcccagg	acctgagctc	ccagcatctg	cagacgaccc	cacggcagac	cttttccctc	300
gggaaccacc	acacactcga	aagncccccct	gggactgagt	tcccaaacca	ggactcacag	360
ggcagttccc	gtccgcaacg	aggtcccgtt	tttcaacttt	gtccttcncc	caacacaccg	420
aacatccccc	aagaagtacc	agggaggtcc	tgcatnttgg	aagccgggag	aacacnagtt	480
tatccagggg	ccgtataatt	ngaggana				508

<210> 502
 <211> 411
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(411)
 <223> n = g, a, c or t

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tcatgcagca	gtgtgacgat	ggctgggtttg	tgggtgtctc	ccggaggacc	cagaaattcg	120
gaacgttccc	tggaaattac	gttgcccccg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtggggag	cgggtggcact	cgtgggaggg	agaggacccc	cgccacatcc	240
tccttcccca	ggacctgagc	tcccagcatc	tgcagaaact	gaaaaccccc	cgggcaaggg	300
ccccttttcc	cccttcgggg	ggaaccccnc	accacataca	ggnaaagana	acccatgnga	360
acagggaaaac	ccaaaacgan	gaaaaaaaaa	gnngaataca	acaaaaaaga	a	411

<210> 503
 <211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(378)
 <223> n = g, a, c or t

<400> 503						
accagtacag	gccccagaac	gaagacgagc	tggagctgcg	cgaggggggac	aggggtggatg	60
tcatgcagca	gtgtgacgat	ggctgggtttg	tgggtgtctc	ccggaggacc	cagaaattcg	120
gaacgttccc	tggaaattac	gttgcccccg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtggggag	cgggtggcact	cgtgggaggg	agaggacccc	cgccacatcc	240
tccttcccca	ggacctgagc	tcccagcatc	tgcagacgan	ccccgcagcc	tttccctcgg	300
accacacaca	ctacgaaagn	ncacccacag	gaccggagaa	ccaaacaaaa	gaaacgtcaa	360
caggggcaag	tatacacg					378

<210> 504
 <211> 821
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(821)
 <223> n = g, a, c or t

<400> 504						
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tctgcagaat	tcgcccttct	ctcggcatgg	acgagctgta	caaggaggag	gccgccaaagg	120
ccggtggcag	cgggtggctcc	agtgtgctgg	gttcttgctg	cttgggggtct	ggtctcaata	180
aggcctggaa	atggtctccg	cttcaaagca	gacctctgta	tttggggagt	gggggtgggga	240
ggaaatgaaa	gggctgtggg	aggaatgcct	gtgagtcgtg	ggtgggaatc	agtcacagggg	300
gcttcgaggg	gggtccgagg	gaaaggctgc	gggggggtcgt	actgcagatg	ctgggagctc	360

aggtcctggg	gaaggaggat	gttgggagg	gggtcctctcc	ctcccacgag	tgccaccgtc	420
cccacccatc	ctgggtggct	ccaagtttgc	catggagacc	actcacaccg	gggcaacgta	480
atthttccagg	gaacgttccg	aattttctggg	tcctccggga	gaacacccac	aaaaccagca	540
tcgttcacac	tgctgcaatg	acatcacacc	tgccccctcg	cgcagctcca	agctcgtact	600
tacgttctgg	ggcccttgta	cttgggtccg	ggcagaaacc	ccagcacaaa	gatgggggta	660
agaantagga	attaaaaagg	cgcggggccg	catccgaacc	ataaanacat	ggaaagggga	720
cctgaataac	ncaaacttgg	aactggatcn	gngacaaagg	gcggccgaaa	atntatcccc	780
agcgnccaac	aacnatggag	acggggcccg	taccaaagat	g		821

<210> 505

<211> 356

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(356)

<223> n = g, a, c or t

<400> 505

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tcatgcagca	gtgtgacgat	ggctggtttg	tgggtgtctc	ccggaggacc	cagaaattcg	120
gaacgttccc	tggaaattac	gttgccccgg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtggggag	cggtggcact	cgtgggaggg	agaggacccc	cgccccacatc	240
ctccttcccc	aggacctgag	ctcccagcat	ctgcagacga	accccgagc	ctttccctcg	300
gaacctcgaa	gcggagaaaa	caagaaaaag	gaaaaaagg	cccatantaa	naataa	356

<210> 506

<211> 340

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(340)

<223> n = g, a, c or t

<400> 506

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ggtgggaatc	agtccagggg	gcttcgaggg	gggtccgagg	gaaaggctgc	gggggtcgte	180
tgcatatnct	gggagctcag	gtcctgggga	aggaggatgt	gggcgggggt	cctctccctc	240
ccacgagtgc	caccgtcccc	accccatcct	ggctgggtcc	aagttgccat	ggagaccact	300
cacaccgggg	caacgtaatt	tccagggaac	gttccgaatt			340

<210> 507

<211> 341

<212> DNA

<213> Homo sapiens

<400> 507

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tcatgcagca	gtgtgacgat	ggctggtttg	tgggtgtctc	ccggaggacc	cagaaattcg	120
gaacgttccc	tggaaattac	gttgccccgg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtggggag	cggtggcact	cgtgggaggg	agaggacccc	cgccccacatc	240
ctccttcccc	aggacctgag	ctcccagcat	ctgcagacga	cccccgcagc	ctttccctcg	300
gacccccctc	gaagccccct	ggactgatcc	ccaccacgat	c		341

<210> 508
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 508
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 gtcattgcagc agtgtgacga tggctgggtt gtgggtgtct cccggaggac ccagaaattc 120
 ggaacgttcc ctggaaatta cgttgccccg gtgtgagtgg tctccatggc aacttggagc 180
 cagccaggat ggggtgggga gcggtggcac tctgtggagg gagaggacc cgcaccacat 240
 cctccttccc caggacctga gctcccagca tctgcagacg acccccgcag cctttccctc 300
 ggaccctcga a 311

<210> 509
 <211> 455
 <212> DNA
 <213> Homo sapiens

<400> 509
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 ggtgggaatc agtccagggg gcttcgaggg gggctccgagg gaaaggctgc gggggtcgtc 180
 tgcagatgct gggagctcag gtcctgggga aggaggatgt gggcgggggt cctctccctc 240
 ccacgagtgc caccgctccc caccatcc tggctggctc caagttgcca tggagaccac 300
 tcacaccggg gcaacgtaat ttccaggga cgttcgaat ttctgggtcc tccgggagac 360
 accacaaac cagccatcgt cactctgtg catgacatcc accctgtccc cctcgcgcag 420
 ctccagctcg tcttcgttct ggggcctgta ctggt 455

<210> 510
 <211> 250
 <212> DNA
 <213> Homo sapiens

<400> 510
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 ggtgggaatc agtccagggg gcttcgaggg gggctccgagg gaaaggctgc gggggtcgtc 180
 tgcagatgct gggagctcag gtcctgggga aggaggatgt gggcgggggt cctctccctc 240
 ccacgagtgc 250

<210> 511
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 511
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 tttggggagt ggggtgggga ggaaatgaaa gggctgtggg aggaatgcct gtgagtcgtg 120
 ggtgggaatc agtccagggg gcttcgaggg gggctccgagg gaaaggctgc gggggtcgtc 180
 tgcagatgct gggagctcag gtcctgggga aggaggatgt gggcgggggt cctctccctc 240
 ccacgagtgc caccgtcccc acccatcct ggctggctcc aagttgcat ggagaccact 300
 cacaccggg caacgtaatt tccagggaac gttccgaatt tctgggtcct ccgggagaca 360
 cccacaaacc agccatcgtc acac 384

<210> 512
 <211> 400
 <212> DNA
 <213> Homo sapiens

<400> 512
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ggtgggaatc	agtccagggg	gcttcgaggg	gggtccgagg	gaaaggctgc	gggggtcgtc	180
tgcagatgct	gggagctcag	tcctggggaa	ggaggatgtg	ggcgggggtc	ctctccctcc	240
cacagtgcc	cgtcccccca	cccatccctg	ggcgtggctc	caagttgcca	gtggaagaac	300
actcaccacc	cggggccaac	cggtaatttc	caaggggaacc	ggttcccga	atttcctggg	360
gtccctccgg	gaaaaaacca	acaaaacaag	ccctacggca			400

<210> 513
 <211> 453
 <212> DNA
 <213> Homo sapiens

<400> 513						
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cacgagtgcc	accgctcccc	acccatcct	ggctggctcc	aagttgccat	ggagaccact	300
cacaccgggg	caacgtaatt	tccaggggaac	gttccgaatt	tctgggtcct	ccgggagaca	360
cccacaaacc	agccatcgtc	acactgctgc	atgacatcca	ccctgtcccc	ctcgcgcagc	420
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<210> 514
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 514						
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ccacgagtgc	caccgtcccc	acccatcctg	gctggctcca	agttgccatg	gagaccactc	300
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<210> 515
 <211> 302
 <212> DNA
 <213> Homo sapiens

<400> 515						
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tcctttcccc	aggacctgag	ctcccagcat	ctgcagacga	accccggaag	ctttccctcg	300
ga						302

<210> 516
 <211> 465
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(465)
 <223> n = g, a, c or t

<400> 516
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 gggagaacac ccacaaacca gccatcgtca cactgctgca tgacatccac cctgtccccc 420
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<210> 517
 <211> 458
 <212> DNA
 <213> Homo sapiens

<400> 517
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<210> 518
 <211> 529
 <212> DNA
 <213> Homo sapiens

<400> 518
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 cgctcgtctt cgttctgggg cctgtactgg tccgcaaacc cagcacagt gttagatgat 480
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<210> 519
 <211> 2938
 <212> DNA
 <213> Homo sapiens

<400> 519
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<210> 520
 <211> 671
 <212> PRT
 <213> Homo sapiens

<400> 520

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			20					25					30		
Thr	Arg	Val	Pro	Val	Ile	Arg	Asn	Gly	Gly	Ser	Asn	Thr	Leu	Asn	Phe
			35				40					45			
Gln	Phe	His	Asp	Pro	Ala	Pro	Arg	Thr	Val	Cys	Asn	Gly	Gly	Tyr	Thr
	50					55					60				
Pro	Arg	Arg	Asp	Ala	Ser	Gln	His	Pro	Asp	Pro	Ala	Trp	Tyr	Gln	Thr
65					70					75				80	
Trp	Pro	Gly	Pro	Gly	Ser	Lys	Pro	Ser	Ala	Ser	Thr	Lys	Ile	Pro	Ala
				85					90					95	
Ser	Gln	His	Thr	Gln	Asn	Trp	Ser	Ala	Thr	Trp	Thr	Lys	Asp	Ser	Lys
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		115					120					125			
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130						135					140				

Asp	Trp	Tyr	Arg	Arg	Met	Phe	Gln	Gln	Ile	His	Arg	Lys	Met	Pro	Asp	145	150	155	160
Leu	Gln	Leu	Asp	Trp	Thr	Phe	Glu	Glu	Pro	Pro	Arg	Asp	Pro	Arg	His	165	170		175
Leu	Gly	Ala	Gln	Gln	Arg	Pro	Ala	His	Arg	Pro	Gly	Pro	Ala	Thr	Ser	180	185	190	
Ser	Ser	Gly	Arg	Ser	Trp	Asp	His	Ser	Glu	Glu	Leu	Pro	Arg	Ser	Thr	195	200	205	
Phe	Asn	Tyr	Arg	Pro	Gly	Ala	Phe	Ser	Thr	Val	Leu	Gln	Pro	Ser	Asn	210	215	220	
Gln	Val	Leu	Arg	Arg	Arg	Glu	Lys	Val	Asp	Asn	Val	Trp	Thr	Glu	Glu	225	230	235	240
Ser	Trp	Asn	Gln	Phe	Leu	Gln	Glu	Leu	Glu	Thr	Gly	Gln	Arg	Pro	Lys	245	250	255	
Lys	Pro	Leu	Val	Asp	Asp	Pro	Gly	Glu	Lys	Pro	Ser	Gln	Pro	Ile	Glu	260	265	270	
Val	Leu	Leu	Glu	Arg	Glu	Leu	Ala	Glu	Leu	Ser	Ala	Glu	Leu	Asp	Lys	275	280	285	
Asp	Leu	Arg	Ala	Ile	Glu	Thr	Arg	Leu	Pro	Ser	Pro	Lys	Ser	Ser	Pro	290	295	300	
Ala	Pro	Arg	Arg	Ala	Pro	Glu	Gln	Arg	Pro	Pro	Ala	Gly	Pro	Ala	Ser	305	310	315	320
Ala	Trp	Ser	Ser	Ser	Tyr	Pro	His	Ala	Pro	Tyr	Leu	Gly	Ser	Ala	Arg	325	330	335	
Ser	Leu	Ser	Pro	His	Lys	Met	Ala	Asp	Gly	Gly	Ser	Pro	Phe	Leu	Gly	340	345	350	
Arg	Arg	Asp	Phe	Val	Tyr	Pro	Ser	Ser	Thr	Arg	Asp	Pro	Ser	Ala	Ser	355	360	365	
Asn	Gly	Gly	Gly	Ser	Pro	Ala	Arg	Arg	Glu	Glu	Lys	Lys	Arg	Lys	Ala	370	375	380	
Ala	Arg	Leu	Lys	Phe	Asp	Phe	Gln	Ala	Gln	Ser	Pro	Lys	Glu	Leu	Thr	385	390	395	400
Leu	Gln	Lys	Gly	Asp	Ile	Val	Tyr	Ile	His	Lys	Glu	Val	Asp	Lys	Asn	405	410	415	
Trp	Leu	Glu	Gly	Glu	His	His	Gly	Arg	Leu	Gly	Ile	Phe	Pro	Ala	Asn	420	425	430	
Tyr	Val	Glu	Val	Leu	Pro	Ala	Asp	Glu	Ile	Pro	Lys	Pro	Ile	Lys	Pro	435	440	445	
Pro	Thr	Tyr	Gln	Val	Leu	Glu	Tyr	Gly	Glu	Ala	Val	Ala	Gln	Tyr	Thr	450	455	460	
Phe	Lys	Gly	Asp	Leu	Glu	Val	Glu	Leu	Ser	Phe	Arg	Lys	Gly	Glu	His	465	470	475	480
Ile	Cys	Leu	Ile	Arg	Lys	Val	Asn	Glu	Asn	Trp	Tyr	Glu	Gly	Arg	Ile	485	490	495	
Thr	Gly	Thr	Gly	Arg	Gln	Gly	Ile	Phe	Pro	Ala	Ser	Tyr	Val	Gln	Val	500	505	510	
Ser	Arg	Glu	Pro	Arg	Leu	Arg	Leu	Cys	Asp	Asp	Gly	Pro	Gln	Leu	Pro	515	520	525	
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Gln	Thr	Ser	Pro	Arg	Arg	Thr	Gly	Phe	Ser	Phe	Pro	Thr	Gln	Glu	Pro	565	570	575	
Arg	Pro	Gln	Thr	Gln	Asn	Leu	Gly	Thr	Pro	Gly	Pro	Ala	Leu	Ser	His	580	585	590	
Ser	Arg	Gly	Pro	Ser	His	Pro	Leu	Asp	Leu	Gly	Thr	Ser	Ser	Pro	Asn	595	600	605	
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Pro	Gln	Asn	Glu	Asp	Glu	Leu	Glu	Leu	Arg	Glu	Gly	Asp	Arg	Val	Asp
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Val	Met	Gln	Gln	Cys	Asp	Asp	Gly	Trp	Phe	Val	Gly	Val	Ser	Arg	Arg
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<210> 521
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 <212> DNA
 <213> Homo sapiens

<400> 521

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 Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
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 420 425 430
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<210> 523
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 <212> DNA
 <213> Homo sapiens

<400> 523
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<210> 524
 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 524
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 Gln Pro Gly Asp Lys Trp Leu Val Ile Glu Arg Arg Val Tyr Asp Ile
 35 40 45
 Ser Arg Trp Ala Gln Arg His Pro Gly Gly Ser Arg Leu Ile Gly His
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      <400> 525
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      35      40      45
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
      50      55      60
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<210> 526

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> linker (GGS)-2 in plakoglobin-GFP fusion protein
construct

<400> 526

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